Durham E-Theses

Business development services and small business growth in Ghana

Obeng, Bernard Acquah

How to cite:

Obeng, Bernard Acquah (2007) *Business development services and small business growth in Ghana*, Durham theses, Durham University. Available at Durham E-Theses Online: http://etheses.dur.ac.uk/1962/

Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the full Durham E-Theses policy for further details.

Academic Support Office, Durham University, University Office, Old Elvet, Durham DH1 3HP
e-mail: e-theses.admin@dur.ac.uk Tel: +44 0191 334 6107
http://etheses.dur.ac.uk

Thesis
2007/
OBE

Chapter 7

The extent of use and level of impact of business advice

7.1. Introduction

Understanding the role that networks play in small business start-up and development has for some time now been of interest to researchers, practitioners and policy-makers. In-particular researchers have been keen to identify the influence and impact of relationships at both the individual and organisational level and understand how resources are actually mobilised. This has resulted in the emergence of a substantial body of literature claiming to deal with entrepreneurial and small business networks. However, research on networking in Ghana and Africa more generally is less developed than studies of the US and European countries (McDade and Spring, 2005; Spring and McDade, 1998; King and McGrath, 1999; Jackson, 2002; Murinde and Woldie, 2003).

From the considerable work carried out it is clear that there is a growing consensus that social networks affect economic performance (Arrow, 2000) and economic goals are typically accompanied by non-economic goals related to the social context (Granovetter, 1992). Considering individuals are perceived to be embedded in social situations and constantly in touch with others it is probably not surprising that in reality links to others are drawn on to support a firm's activities (Aldrich and Zimmer, 1986; Araujo and Easton, 1996; Bruderl and Preisendorfer, 1998; Elfring and Hulsink, 2002; Johannisson, 2000; Kim and Aldrich, 2005). Indeed, recent thinking goes so far as to suggest that engaging in networking activity and the type of contacts drawn on and used can influence the survival, growth and development of a firm and how it is actually managed (Arocena, 1984; Ahuja, 2002; Aldrich and Zimmer, 1986; Birley, 1985; Brüderl and Preisendörfer, 1998; Carsrud

HUNE
13 FEB 2008

and Johnson, 1989; Chell and Baines, 2000; Dubini and Aldrich, 1991; Easton and Araujo, 1986; Grandi and Grimaldi, 2002; Halinen et al, 1999; Harland, 1995; Huggins, 2000; Johannisson *et al*, 1994; Karamanos, 2003; Nelson, 2001; Nohria and Eccles, 1992; Oliver and Ebbers, 1998). Networks are perceived to strengthen both flexibility and competitiveness of smaller firms (Özcan, 1995). So, as researchers increasingly look to appreciate the influence of relational aspects on a firm's inception, growth and development processes the need to try and understand the types of contacts drawn on, the relevance, importance and association between networks and firm performance prevails.

Defined by Hoang and Antoncic (2003: 167) as "a set of actors and some set of relationships that link them....the pattern of relationships that are engendered from the direct and indirect ties between actors" the general consensus is that networks allow relevant information to be gathered. Furthermore, networks provide an additional resource base that can be accessed and used to supplement personal resources, improving the likelihood of a firm's survival and success (Aldrich and Zimmer, 1986; Brüderl and Preisendörfer, 1998; Hansen, 1995; Jack and Anderson, 2002; Johannisson, 1986; 1987; Johannisson and Nilsson, 1989; Ostgaard and Birley, 1994). Network contacts are perceived to provide ideas, opportunities, business information, support, advice and help with problem solving (Araujo and Easton, 1996; Birley, 1985; Brüderl and Preisendörfer, 1998; Greve and Salaff, 2003; Hoang and Antoncic, 2002). Indeed, some network contacts may even provide multiple resources (Hoang and Antoncic, 2003). So, in many ways who an individual knows and who he/she draws on could be critical for a firm's success. Thus, it is perhaps rather unsurprising that a network has been described as a powerful "asset" to possess (Elfring and Hulsink, 2002).

Although previous work has considered the types of contacts drawn on the evidence available suggests that we need to enhance our understanding of how specific contacts actually support the smaller firm, particularly in developing nations such as Ghana (McDade and Spring, 2005). Moreover, one of the criticisms network research has faced is that to broaden our understanding about networks we need to look at them in various contexts (Uzzi, 1997; Jack and Anderson, 2002; Bøllintoft and Ulhøi, 2004). Research on networking in Ghana and Africa more generally is less developed than studies of the US and European countries (McDade and Spring, 2005; Spring and McDade, 1998; King and McGrath, 1999; Jackson, 2002; Murinde and Woldie, 2003). This is somewhat disappointing considering the influence networks are perceived to have on new venture start-up and development.

It is this shortcoming that this chapter deals with. It reports the findings of a study that considered the networking activities of 500 entrepreneurs in Ghana. In doing so this chapter aims to contribute to understanding about networks by broadening our comprehension of the types of contacts small business owners draw on. It also provides a wider appreciation of the role of networks by looking at how networks are used to support and develop business activities. Moreover, an advantage of the study presented here is that it considers these aspects within the context of Ghana, and we need more studies of how small business networks in developing and peripheral economies are formed and function (Özcan, 1995).

The remainder of the chapter is organized as follows. In section 2 a review of previous work that has considered networks and firm development is provided. From this review a series of hypotheses are arrived at in section three relating to the use of business advice. The fourth section examines the levels of use of business advice networks. The fifth section examines the number of sources of advice used,

that is, whether the businesses used single or multiple source(s) of advice. Section six measures the impact of the use of external advice on attainment of the business objectives. Section seven uses multiple regression analysis to determine the influence of the business and the entrepreneurs' characteristics on the use of business advice. Section eight measures the impact of the use of external advice using multivariate analysis. The final section concludes the chapter.

7.2. Networks and Firm Development

The relationship between networks and the smaller business has received considerable attention in recent years as researchers strive to understand the process of venture creation and those factors that impact on, influence and affect a firm's subsequent development. Research findings frequently and consistently tell us that small business owners rely heavily and extensively on social and more informal contacts - for instance friends, family, previous colleagues and social contacts – particularly when assembling the elements of the firm and at an early stage of enterprise development (Birley et al., 1991; Johannisson, 2000, 1990; Larson and Starr, 1993; Monsted, 1995; Hite, 2005). Various reasons for this have been offered. Economic action is seen to be embedded in ongoing networks of personal relationships so that economic goals are typically accompanied by non-economic goals which are related to the social context (Piore and Sabel, 1984; Powell, 1990; Granovetter, 1992; Ring and Van de Ven, 1992; Snow et al., 1992; Jones et al., 1997; Young, 1998; Arrow, 2000; Jack and Anderson, 2002). Moreover, there is a widely held view within the field that entrepreneurs are intimately tied through their social relationships to a broader network of actors (Hoang and Antoncic, 2003). These network ties, particularly for emerging firms, provide the "conduits, bridges and

pathways" to opportunities and resources but the characteristics of these ties influence how they are "identified, accessed, mobilized and exploited" (Hite, 2005: 113). So, the ties that form a network can have a significant impact on the type and extent of resources a firm might acquire (Jack, 2005) and probably affect its subsequent development.

Networks can play a valuable but varied role for business activity. Not only can networks influence and impact on the firm but also the nature and very shape of economic outcomes. Drawing on network contacts is seen to be a mechanism for improving small firm success. Such contacts not only allow diversity in information but also the spread of information about the venture, informal routes to finance from relatives or acquaintances (particularly for start-up), unpaid family workers and loyal employees, emotional support and stability (Brüderl and Preisendörfer, 1998). However, it may be that the actual choice of network contacts is the key to understanding developments of the firm (Grandi and Grimaldi, 2002). Furthermore, the actual sources and contacts used may not only impact upon the initial stages of venture start-up, but also its subsequent growth, development and performance (Hoang and Antoncic, 2003). Indeed, network participation might not only bring benefits to the individual but also the firm and wider community. The industrial district literature and work in entrepreneurship argues that in the long run all network participants will benefit from an increased availability of resources (Havnes and Senneseth, 2001). The organisation and co-ordination of resources for the smaller firm requires social activity and social interaction with existing social relationships being activated and new ones created (Brüderl and Preisendörfer, 1998). Consequently, the actual sources and contacts used become particularly important. However, the extent to which networks support, influence and impact on the firm is

likely to be dependent on the actual structure of the network and those contacts that make up that structure (Greve and Salaff, 2003). For example, the limited comparative work available suggests that different "types" of network contacts are drawn on for growth and development compared to start-up (ibid.). Yet because it is limited our understanding and knowledge about the extent to which this occurs is fairly narrow and restricted to a general understanding of networks, even though it would seem that the characteristics of the firm determine the extent of the reliance on networks. So, the use of networks may differ and possibly be influenced by the particular and specific circumstances of a firm.

7.3 Hypotheses

This section sets the research questions on the use of advice and the characteristics of the businesses and the entrepreneurs. Evidence from the literature review on business support services in chapter 3 demonstrated that the characteristics of the business and the entrepreneurs can influence the use of external advice by small businesses. This section therefore attempts to set the hypotheses for specific entrepreneurs' characteristics such as the gender, age and educational qualification and the business characteristics such as size, age, growth, innovation, R&D, training, export, family ownership, and location.

7.3.1 Growth and Size

Know-how in a firm has been attributed to personal contacts and the business owner's networks to others, firms and organizations that support the development of the firm (Johannisson, 1987; Littunen, 2000; Nittykangas et al., 1994). The more developed a network is in terms of quantity and quality of ties the more beneficial it

is for start-up (Larson and Starr, 1993). For instance, individuals whose personal networks are composed of people with technical and business knowledge can call on those networks for specialized information, reducing the likelihood of making technical errors and increasing the probability of start-up success (Butler et al. (2003) referring to Nam (2000)). There is a need to invest in network formation (Donckels and Lambrecht, 1995; 1997). In the early stages of firm creation individuals are seen to be concerned with building networks to overcome the liability of being new (Aldrich, 1999; Stinchcombe, 1965) and should look to mobilize existing and available resources to promote the new business (Starr and MacMillan, 1990). From a networking perspective the personal relationships of the owner describe his/her activities in developing his/her skills (Littunen, 2000). Yet, growth of the firm may be facilitated or constrained by the network (Yli-Renko and Autio, 2002) and there does seem to be reliance on different types of contacts at different stages of development (Birley, 1985; Hite, 2005). Whilst individuals in smaller sized ventures have specific needs, the case may be that larger ventures have different types of problems requiring access to different types of network contacts. Bennett and Robson's (1999, 2003) studies have also shown positive relationships between the use of advice and the size of the business with the exception of the use of business friends and relatives where negative associations were established. Wolf (2004) also made a similar observation in Ghana when she found that businesses that used external advice were larger and had foreign capital components. Furthermore, recent empirical studies in Ghana and some African countries have shown that due to the accessibility of a wide range of resources to larger businesses it appears that large businesses have higher productivity rate and grow faster than small businesses (Frazer, 2005; Sleuwaegen and Goedhuys, 2002; Soderbom and Teal, 2002).

On the other hand, Johnson et al. (2004) found no statistical association between the size of the business and the use of advice. Ramsden and Bennett (2005) also found less variation between the size of the business and the use of advice. Notwithstanding the findings of these studies, a number of studies have argued for government intervention in the provision of external support to small businesses because of lack of finance or limited internal resources (Lambretch and Pirnay, 2005; Hjalmarsson and Johansson, 2003). It is argued by these studies that inadequate financial resources would limit the access of small businesses to external advice and information. Alternatively, it could also be argued that because of limited resources many small businesses are not able to recruit qualified staff and would therefore depend extensively on the use of external advice than the larger businesses. However, on balance it is believed that the greater the size of the firm the more likely that they are to seek business advice.

Hypothesis 1: It is proposed that the type of contact drawn on increases depending on the size of the firm.

The growth of organizations can be captured using a variety of different variables such as sales revenue growth or employment growth. The rate of employment growth is of greatest relevance to governments and policy makers because it is seen as an important way of reducing unemployment (Birch, 1979; Storey, 1994). The rate of employment growth also captures the changes that organizations are encountering as growth in business facilitates increases in the number of people employed. Robson and Bennett (2000) argued that as the business expands, its operations become complicated and the need for external advice

increases as management attempts to fill the knowledge gap created by the business expansion. Furthermore, in a review of literature on empirical studies on the use of information and business advice, Storey (1994) concluded that growing businesses appeared to have used external advice and information more than the other businesses which also confirms Wolf (2004) and Barr (1999) findings in Ghana. This conclusion has also been confirmed by more recent studies undertaken by Berry et al. (2006) and Ramsden and Bennett (2005). Thus, it is expected that the greater the rate of employment growth experienced by an organization the greater the need for external networking, to cope with the increased numbers of people, and the greater number of problems and difficulties encountered with growth and which are overcome by networks.

Hypothesis 2: It is proposed that fast growth firms seek more advice than slower growing firms.

7.3.2 Training

Empirical studies on the provision of training by small businesses have confirmed that many small businesses hardly provide formal training to their workforce (Devins and Johnson, 2003; Hjalmarsson and Johansson. 2003). Devins and Johnson (2003: 213) noted that 'the reluctance of entrepreneurs to engage external training providers continue to provide a policy challenge to the British government'. In Ghana, Velenchik (1995: 451) found that apprenticeship training was a widespread activity and the majority of entrepreneurs and manufacturing workers received their training in that form. Sowa et al. (1992: 27) also noted that

apprenticeship training served as a major source of training for many owner-managers in Ghana.

McGrath and King (1995: 4) also reported that in West Africa the 'traditional apprenticeship' system plays a significant role as a source of skilled labour for SMEs. However, UNCTAD (2001: 23) noted in Burkina Faso that a lack of training in management was a major constraint to small businesses' growth. Wolf's (2004) study has demonstrated that training increases the productivity of the workforce, particularly formal business training. This notwithstanding, evidence from other empirical studies has shown that owner-managers and employees' training in Ghana has been limited to in-house training (Sowa et al. 1992; Velenchik, 1995).

Among the reasons why small businesses were not able to provide external training to their workforce was the problem of inadequate financial resources (Hjalmarsson and Johansson, 2003; Lambretch and Pirnay, 2005). Furthermore, Kirby (1990) pointed out that due to the low educational level of many owner-managers they are sometimes unsure about the value of training programmes to their businesses.

Evidence from studies undertaken in Africa also suggests that many training programmes offered by small businesses to their workforce could be classified as internal (Sowa et al. 1992; Lall, 1995). According to Storey (2004) this type of training is mostly unstructured, unplanned, and could not be easily identifiable. Micro and very small businesses are more likely to provide this type of training to their workforce (Sowa et al. 1992). Inferring from the above analysis, it could be argued that businesses which provided training were less likely to use external advice. Additionally, if a firm invests in training the more likely it is that the firm is aware of areas where external knowledge and expertise, from advice providers, could

be drawn on to help support the growth, and development of the venture. Alternatively, it could also be argued that businesses which provided training to their workforce had become aware of the benefit associated with the use of external advice and training and would therefore be more likely to use such services.

Hypothesis 3: On balance it is expected that those firms which provide training are more likely to use business advice.

7.3.3 Innovation

Innovation is widely regarded as a key ingredient for business success (Rogers, 2002). Yet, there is little comparative work in the area of innovation particularly in Africa (Oyelaran-Oyeyinka, 2004; Chipika and Wilson, 2006; Murphy, 2002). Chipika and Wilson's (2006) study of networks and technological learning among light engineering SMEs in Zimbabwe found a significant association between the two across the surveyed firms. This association was particularly significant with customer networks. Oyelaran-Oyeyinka et al. (1996) also made similar observations in Nigeria by noting that linkages and agreements between local companies and their foreign counterparts facilitated innovation among the local firms.

In Kenya, Aduda and Kaane (1999) reported that weak linkages between micro and small enterprises (MSEs) and medium and large enterprises hinder innovation activities in the country. Whilst Sverrisson (1997) observed in Accra, Ghana that direct interaction among enterprises in the light engineering sector with their customers facilitated the design and development of new machines.

Panizzolo (1997) found that internal innovation is a "relationship process", that is, it is fundamentally derived from the relationships the firm has with other actors

and that the main engine for innovation and diffusion of technology is located in the customer-supplier relationship. He continued that innovation takes place within a context characterised by the existence of a capillary system of relationships with numerous, different actors. Relations with other actors represent an exchange of knowledge. Karlsson and Olsson (1998) also stress the importance of innovation networks. They point out that the exchange of resources can occur through formal and informal channels and that there is evidence to suggest that informal channels are equally important (von Hippel, 1988). When it comes to innovation the existence of local networks is seen to be vital (Karlsson and Olsson, 1996). An innovative venture works at developing external business contacts and links and exploits its network for ideas and information (White et al, 1988). According to innovation theory, belonging to a network increases a firms innovation rate whilst, indirectly, strategy theory argues it will increase a firm's competitive advantage, profit and long-term survival (Havnes and Senneseth, 2001). A relationship between networking and growth in the geographic extension of the markets of firms has been identified by Havnes and Senneseth (2001) who interpreted it as an effort to reduce long-term risk and thereby reduce the costs of the firm. So, it would seem that it is possible that innovative firms have a group of workers who perform all the tasks which the owner and management require. Alternatively, the case that we consider more probable is that by virtue of being at the forefront of their industry with more needs to adapt and change, innovative organizations have a greater need to network in order to maintain momentum and their innovating position.

Hypothesis 4: It is proposed that the type of contact drawn on by innovating firms differs from that of non-innovating firms.

7.3.4 Internationalisation and Exporting

As research into networks has developed, there has been interest in and recognition of the diversity of key relationships, both direct and indirect, that firms maintain in foreign markets (Welch and Welch, 2004). Internationalisation has been the subject of considerable interest by researchers, practitioners and governments for some time now as all seek a better understanding of how and why the process occurs (Welch and Welch, 2004). For internationalising activities networking is seen to be highly effective in increasing opportunities (Dana, 2000). When individuals are linked to larger partners the product(s) of smaller firms are more able to reach global markets more quickly or at a lower cost than through independent expansion (Harrison, 1997). Among factors external to the firm, inter-firm networks have come to be considered an important part of the change process in internationalisation: access to foreign market networks often being the key to foreign market penetration and the source of much value (Johanson and Vahlne, 1990). The internationalisation of the firm is critically dependent upon the development of relationships with key customers and a variety of market intermediaries (Welch and Welch, 2004). Firms often use existing domestic or foreign relationships to facilitate foreign market entry, for example by taking advantage of connections of customers, suppliers or intermediaries that have already internationalised (Johanson and Mattsson, 1988). Welch and Welch (2004) argued that as well as being a product of its existing relationships, a firm's international expansion is affected by the degree of structuring of the foreign network it seeks to enter (Blankenburg, 1995). Evidence from the various empirical studies have also confirmed that access to information on international business opportunities is one of the main factors influencing small businesses to enter the international market (De Chiara and Minguzzi, 2002; Ibeh,

2003; Leonidou, 2004; Leonidou and Adam-Florou, 1999). For instance, De Chiara and Minguzzi, (2002) work in Italy found a positive relationship between demand for support services and the business propensity to export. Johnson et al. (2004) also made a similar observation in Britain when a positive statistical association was found between the use of external advice and the businesses involved in exporting activity. There is also evidence from an empirical study in Africa where businesses that were involved in exporting activities appeared to have had regular contacts with friends, relatives and associates abroad (Ibeh, 2003). Wolf's (2004) study in Ghana also revealed that businesses in the export sector used more external support services and that performance was better in terms of turnover and profit per employee than the non-exporting businesses. Furthermore, Abor and Bikpe (2006) found in Ghana that non-traditional exporters of which the majority are small-scale enterprises depend more on formal finance as oppose to informal finance. It is anticipated that such businesses will seek more advice from formal sources than non-exporters. The exporting of goods and services is a difficult activity which can require a great deal of time and energy. It would thus be expected that exporting firms make greater recourse to networks to maintain and balster exporting activity and intensity.

Hypothesis 5: It is proposed that firms that export are more likely than non-exporters to seek advice

7.3.5 Research and Development (R&D)

Investment in R&D requires considerable resources and the outcome is often uncertain (Wignaraja, 2002). Small sized organizations that undertake R&D activities are also likely to face considerable technical and financial difficulties.

Given the above background, it could be inferred that small organizations that are involved in R&D activities are more likely to seek information and use networks than small organizations that are not involved in R&D activities. According to Wignaraja (2002) interaction and exchange of technical inputs with other businesses, support institutions, research institutions, training bodies and extension services are basic components of capability building. Sverrisson (1997) also made a similar observation among enterprises in the light engineering sector in Ghana.

Hypothesis 6: Firms involved in R&D activities are more likely than those firms who do not spend money on R&D to seek advice.

7.3.6 Sector

Evidence from the literature suggests that the sector of the business has a significant influence on the use of external advice (Wolf, 2004; Bennett and Robson, 2003; Boter and Lundstrom, 2005; Burke and Jarratt, 2004). Bennett and Robson (2003) found significant statistical associations between the use of external business advice and the sector of the small businesses. Wolf (2004) also found sectoral differences in the use of external advice by small businesses in Ghana. Sverrisson's (1997) study also demonstrated how small enterprises in the light engineering sector used networks to overcome the problem of inadequate resources. Barr's (1999) study also shows sectorial differences in the use of networks and performance.

Furthermore, Burke and Jarratt (2004) argued that technological changes serve as a driver for the need for external information and therefore concluded that small businesses in the technological sector would be more likely to seek external advice than other businesses not operating in the same sector. Given the fact that businesses

in the agricultural sector experience more problems than businesses in the manufacturing and service sectors (Robson and Obeng, 2007), it is argued that small businesses in the manufacturing and the service sectors are less likely to use external advice than those in the agricultural sector.

Hypothesis 7: Firms in the manufacturing and the service sectors are less likely to use networks than those in the agricultural sector.

7.3.7 Family

Family businesses are defined in this study as those businesses which are owned and operated by the owner-managers and employ at least one member of the family in the businesses (Handler, 1989). These categories of organizations play an important role in many economies whether developed or developing. However, evidence from the various studies in Africa (Buame, 1996; Takyi-Asiedu, 1993; Kiggundu, 2002) suggests that entrepreneurs in family businesses were more likely than non-family businesses to be poorer and their systems of management were more likely to be unstructured. These businesses were also likely to employ family members against competent potential job applicants. Kotey's (2005) study on management practices and performance of family businesses also found that management practices for small family businesses were less formal compared to non-family small businesses. Such businesses were also less likely to pursue growth when compared to similar non-family businesses (Kotey, 2005). Based on the above it is suggested that family businesses are less likely to rely on external experts and networks than the non-family businesses.

Hypothesis 8: Non-family firms are more likely to be associated with the use of networks than the family firms.

Location

Empirical studies on the influence of the location of the business on the use of external networks have produced mixed results (Johnson et al., 2004; Boter and Lundstrom, 2005; Keeble, 2003). Johnson et al. (2004) concluded that businesses located in the densely populated areas were more likely to use external advice, but Boter and Lundstrom (2005), on the other hand, reported that businesses located in sparsely populated areas were the most regular users. Keeble's (2003) study on the use of business advice by businesses located in urban and rural areas also concluded that 'urban rural variations in the use of all these different external sources of business advice are in contrast far less and not statistically significant'. Bennett et al. (2001) also found the location of the business to be less likely to influence the use of external advice. In Africa, various studies have shown that location matters with regard to the use of external advice and networks (McPherson, 1996; McCormick et al., 1997; Sleuwaegen and Goedhuys, 2002). McCormick et al. (1997) observed in Kenya that location was a tangible basis for interfirm linkages. Sleuwaegen and Goedhuys (2002) also found in Cote d'Ivoire that businesses located in the commercial district of Abidjan were more likely to engage in networking and subcontracting. The above analysis has revealed the lack of consensus among researchers on the influence of location on the use of external advice; but, it is proposed that on balance the location of the business is more likely to influence the use of external advice.

Hypothesis 9: Businesses located in conurbation areas are more likely to be positively associated with the use of business advice.

Gender

A study undertaken by Mukhtar (2002) found significant differences between management practices of male and female owner-managers. There is also evidence from studies undertaken in Africa that suggest that female owner-managers face more managerial and operational problems than male owner-managers (McDade and Spring, 2005; Saffu and Manu, 2004; Kitching and Woldie 2004; Kiggundu, 2002). For instance, Kiggundu (2002) observed that female owner-managers experienced more operational and strategic impediments to success than their male counterparts. Kitching and Woldie (2004) found in Nigeria that businesswomen faced problems in specific areas such as credit facility, education and training. Rietz and Henrekson's (2000) study in Sweden also confirmed the findings from the existing studies in Africa that many female owner-managers underperformed relative to their male counterparts. The main reasons for this poor performance could be explained by the work of Stanger (2004) who noted that female owner-managers probably have low educational qualifications and limited prior industrial experience when compared to their counterparts. For example, evidence produced by the Ghana Living Standard Survey (2000) showed that 41% of the female respondents indicated that they had never been to school compared to 21% of their male counterparts. In order to overcome these limitations female owner-managers are more likely to use networks than their male counterparts. Alternatively, it could be argued that because female owner-managers lack financial resources, they are less likely to use external support

services as compared to their male counterparts. Jay and Schaper (2003: 141) found male owner-managers positively associated with the use of external advice.

Hypothesis 10: The use of external advice is positively associated with the gender of the entrepreneurs.

Age

Various studies on the influence of the age of the owner-manager and the use of networks have found older owner-managers less likely to seek information than young owner-managers (Jay and Schaper, 2003; Kirby and King, 1997). Jay and Schaper (2003: 141) found a significant and a negative association between the age of the owner-manager and the use of networks. Kirby and King (1997) explained that older owner-managers appeared to be less likely to seek information because they had gained more experience in life and in business and would in many cases depend on that experience rather than to seek information. However, a study by the Pentax Management Consultancy Services (2005) in Ghana found those owner-managers over 40 years used more external advice than the younger owner-managers, but they gave no particular explanation for this result. Cragg and King (1988) noted that younger owner-managers appeared to be more ambitious in their managerial practices and would therefore be more likely to seek external advice than the older owner-managers. Given Kirby and King's (1997) reasons and Jay and Schaper's (2003) findings, it is prudent to suggest that older entrepreneurs are less likely to use networks than young entrepreneurs.

Hypothesis 11a: There is a significant and negative association between the age of the owner-manager and the use of business advice.

The age of the firm

Barringer et al.'s (2005) study has shown that as the small businesses become older and experience, there was less likelihood of the business to seek external advice. Barringer et al. (2005) study appeared to suggest that young small businesses were more likely to use external advice than the old small businesses although Johnson et al. (2004) found no significant relationship between the two variables. In Africa on the other hand, many studies have found an inverse relationship between the age of the business and growth (Liedholm, 2002; Mead and Liedholm, 1998; McPherson, 1996). However, Sowa et al. (1992) noted that older businesses' performances appeared to have been influenced by the experience gained in the past. In Africa where old age symbolizes a sign of wisdom (Takyi-Asiedu, 1993), it is anticipated that young businesses are more likely to rely on external advice and networks than old businesses. Alternatively, it could be possible for old businesses to establish more inter-firm links and networks as a result of their experience in business (Jay and Schaper, 2003).

Hypothesis 11b: The age of the business could be negatively associated with the use of external advice.

Education

Intuitively, entrepreneurs with a greater educational background are more likely to perform better than those with no or basic educational qualifications. However,

empirical studies that have examined the influence of the level of qualification of the owner-manager and the use of networks have produced mixed results. Barkham et al. (1996) found no significant association but rather found owner-managers who were members of professional associations had achieved higher growth. Barringer et al. (2005) found a significant association between higher college education and business growth. Kiggundu (2002) could not provide a firm conclusion on the subject in his study in Africa although Mead and Liedholm (1998) and McCormick et al. (1997) found a positive association in their studies in East Africa.

A study undertaken by Sowa et al. (1992) in Ghana provided an interesting result. The study found a significant and a positive link between owner-managers with technical educational backgrounds and business performance although those with the university qualifications performed poorly. Sowa et al. (1992) also found that many owner-managers with no or basic educational qualifications sought external finance and technical advice than those with higher educational qualifications. In a more recent study undertaken by Pentax Management Consultancy Services (2005) it was found that owner-managers with higher levels of education sought information more than those with basic or no educational qualifications. On the other hand, the low level of education of the owner-manager could also lead to the higher use of information to compensate for the knowledge gap (Chrisman and McMullan, 2004). Given the mixed results from the above analysis it could be proposed that the level of education of the entrepreneur is positively or negatively associated with the use of external advice.

Hypothesis 12: The level of education of the entrepreneurs is negatively associated with the use of external advice.

7.4 The use of business advice

Respondents were asked to indicate from a list of 16 sources of business advice those ones which they had and had not used. Also, the respondents were given the opportunity to indicate other sources that they had used. The list was compiled of the private and the public sector business advice providers in Ghana. The respondents were also required, for those sources of advice which they had used, to determine the impact of the advice on meeting their business objectives over the last three years. The respondents in evaluating the impact had a choice of four categories of, no positive impact, moderate impact, important impact, and crucial impact. A four point scale was used to remove the possibility of respondents sitting in the middle which can happen when a five point scale is utilised.

Figure 7.1 and Table 7.1 summarise the percentage of the respondents who had used each of the sources of business advice. The most widely used source of advice was from the customers where more than four out of five of the respondents reported using it. Customers are an important source of information for any business set-up, especially in this competitive global market, and this is confirmed by other studies on information sources for small businesses (Sverrison, 1997; Malecki and Poehling, 1999; Barry et al. 2006; Burke and Jarratt, 2004; Johnson et al., 2004). When ranked relatively with the other sources, customers represented 16.4% of the total amount of business advice (See the third column of Table 7.1). Admittedly, the space constraints in the questionnaire design did not allow the respondents to indicate the number of times that each source was used, but it does serve as an approximate representativeness of the relative importance of each of the sources.

The use of customers as a source of external advice can therefore not be underestimated, and one of the respondents made the following comments.

'My business is centred on the end users of the product, that is, the customers; hence the need to seek advice from them. Our customers especially help us to improve upon the quality of our products'.

In the context of African cultural practices, the role of network in this respect can also not be underestimated (Buame, 1996; Murphy, 2002). Whilst Bennett and Robson (1999: 161) and Malecki and Poeling (1999: 264) have observed that the use of customers was embedded in the societal practices and the networks.

Table 7.1: The percentage of all business advice provided by each of the private and public sources of advice in Ghana.

Source	The Percentage Level of Use	The Percentage of All Business Advice	Cumulative Percentage of all advice
Customer	81.8	16.4	16.4
Friends /relatives	66.1	13.2	29.6
Suppliers	54.6	10.9	40.6
Business Associates	51.1	10.2	50.8
Bank	46.6	9.3	60.1
Accountant	44	8.8	69.0
Trade/Professional Association	31.3	6.3	75.2
Solicitor	27.6	5.5	80.7
Consultants	19.2	3.8	84.6
NBSSI (BAC)	14.3	2.9	87.5
Others	12.5	2.5	90.0
Chamber of Commerce	10.6	2.1	92.1
University/ Polytechnic	10.4	2.1	94.2
Empretec	8.2	1.6	95.8
Gratis/ITTU	8	1.6	97.4
Technoserve	7.4	1.5	98.9
APDF	5.5	1.1	100.0
N		489	

The second most used source of advice was friends and relatives where two thirds of the respondents mentioned it. In terms of ranking with other sources of advice, the use of friends and relatives accounted for 13.2% of the total amount of advice. Suppliers came third with a level of use of 54.6%. In fourth position were

business associates with 51.1%. Thus, in Ghana the four most used sources of advice were each mentioned by more than one half of the respondents. As pointed out by Malecki and Poehling (1999) and Murphy (2002) these sources were embedded in the social networks.

Some of the respondents had the following comments:

'Our suppliers and business associates give us the best advice to enhance our businesses'.

'Suppliers organise seminars for us from time to time and this helps our business to grow'.

'My business is centred on my customers and suppliers and they keep me in business'.

'All the materials I used in making the batik and tie and dye (the terms used for a local made garment) were made available by my suppliers. They ensure that I get the best and my customers advice me on the various designs'.

Looking at the above results and the comments from some of the respondents, it appears that in Ghana interpersonal relationships and social networks play an important role in the take-up of business advice. Buame (1996: 201) considered interpersonal contacts as an important information sources for small businesses in Ghana.

The fifth most used source of advice was by the banks with a level of use of 46.6%. This was followed by accountants who were used by 44% of the respondents. This result contradicts other studies undertaken in the UK where accountants and solicitors were found to be the most frequently used sources of advice (Ramsden and Bennett, 2005; Berry et al. 2006). Only 27.6% of the respondents indicated the use of solicitors which was eighth in rank order. Although the Pentax Management

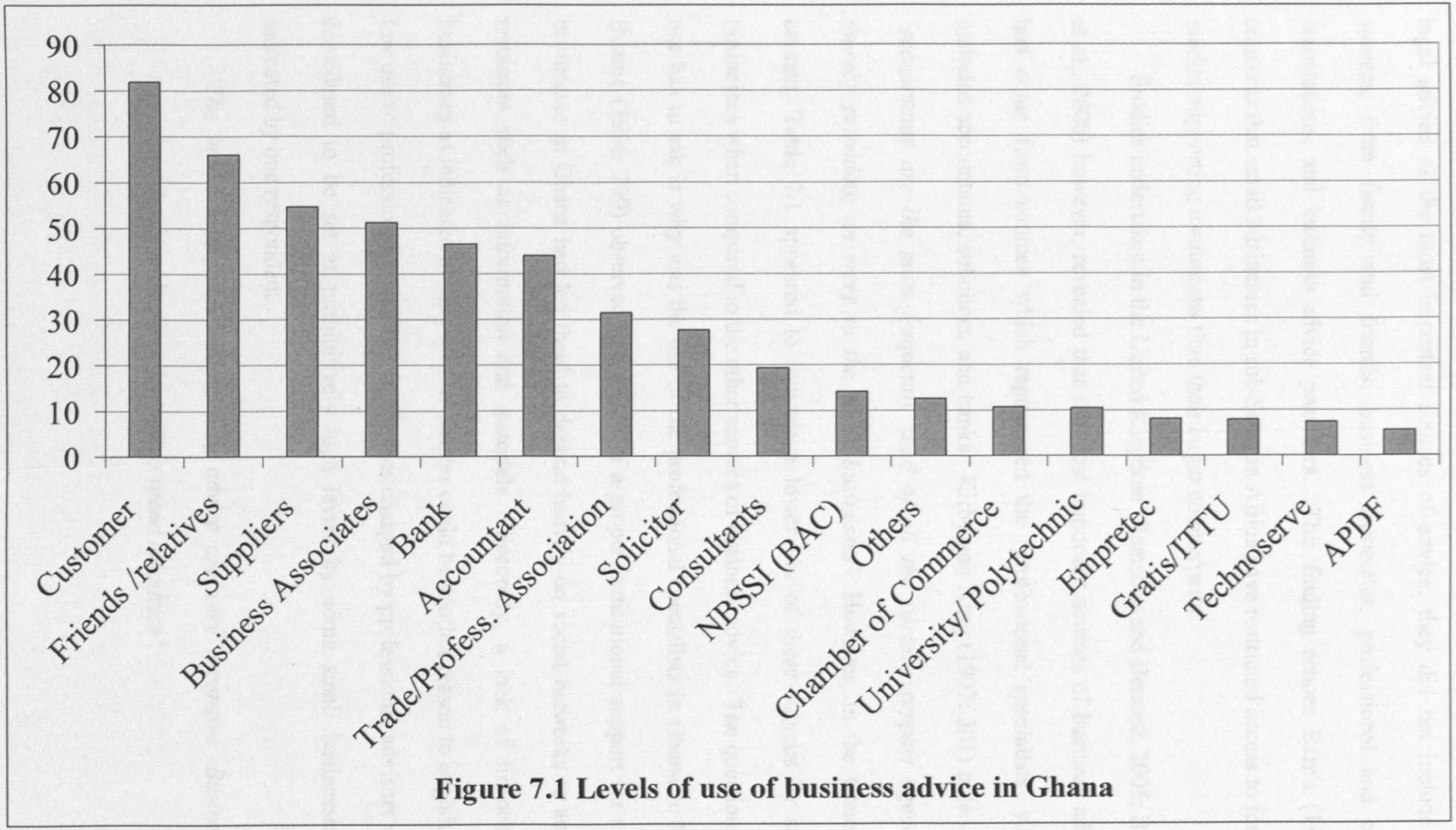


Figure 7.1 Levels of use of business advice in Ghana

Consultancy Services (2005) study reported accounting/book-keeping, auditing and legal advice as the most important sources of advice, they did not include the sources, from family and friends, business associates, professional and trade associations, and business advice providers. This finding echoes Barr's (1999) concerns that small businesses in sub-Saharan Africa have restricted access to formal market-supporting institutions than their larger counterparts.

Studies undertaken in the United Kingdom (Ramsden and Bennett, 2005; Berry et al., 2006) however, revealed that the most important sources of business advice had come from sources which represented the 'professional specialists' which included accountants, solicitors, and banks. Kirby and King (1997: 301) noted that *'accountants are the most frequently used of all the various support agencies, thereby providing an entry to the small businesses'*. However, in the Ghanaian context, Table 7.1 appeared to indicate a lower use of these sources by small businesses when compared to the other sources of business advice. The question that one has to ask is why was the use of the professional specialists in Ghana so low? Buame (1996: 200) observed that a lack of a proper institutional support for small businesses in Ghana had led them to depend heavily on social networks to access resources such as information and materials. Secondly, a lack of finance by businesses as indicated in the previous chapter could be another reason to explain the low use of professional specialists, as the fees charged by professional advisors were considered to be set at prohibitively high levels by some small businesses as indicated by one respondent.

> *'The public and private sources of advice are very expensive. Businesses nowadays do not make enough profit to spend on advice'.*

Thirdly, it could be the case that there is another possible explanation which could be the lack of interest or the lack of the requisite skills by the professional specialists, especially the accountants, to understand the problems faced by small businesses (Kirby and King, 1997; Kasekende, 2001; Abor and Bikpe, 2006).

For trade and professional associations, just less than one third of the respondents used it as a source of advice. In terms of the overall ranking, trade and professional associations were placed seventh. The trade and the professional associations refer to the various voluntary business associations formed by members in a particular profession, trade or industry. They offer a range of advisory services to their members. In most cases, the services had focused on provision of general business information, management training, and skills development and capacity building. These services have an important role to play in the small businesses advisory services due to the inability of individual businesses to undertake the various training schemes on their own (Bennett, 1998). In Ghana, the Association of Ghana Industries (AGI), Private Enterprise Foundation (PEF), and FAGE have established specific units which provide those services to their members. Bennett (1998) noted that by providing external support services to the members of the association, the members' competitiveness are being enhanced.

Considering that 31.3% of the respondents used a trade or professional association as a source of advice, the survey results imply that when given the necessary impetus, trade and professional association could play an even greater role in the provision of advisory services in Ghana. This is based on the belief that given the limited resources and the inability of most small businesses to pay for professional advisory services, forming an association and pooling resources together can benefit the members competitively (Bennett, 1998).

Chambers of commerce was used by slightly more than one in ten of the respondents, and it was in twelth position when ranked with the other sources. Chambers of Commerce is also another form of business association which is similar to trade associations but according to Bennett (1998: 249) 'these are locally based associations that vary greatly in size, activities and geographical extent'. In Ghana, small businesses owner-managers appeared to consider some associations such as chamber of commerce as an appendage of the large scale businesses and therefore felt reluctant to join. McCormick et al. (1997) made similar observations in Kenya that chambers of commerce tended to be dominated by large business interests. Among the services provided to the members of the association included general business information, communication services, organises trade missions overseas, and facilitate market research for its members.

One in five of the respondents used consultants as a source of advice. Consultants play an important role in small business advisory services and their services are usually tailored to meet the specific needs of the businesses although their services could be general in some cases (Burke and Jarratt, 2004). Taking into account that some entrepreneurs lacked adequate finances to undertake their business activities, a 19.2% usage of consultancy seems to indicate the willingness of some owner-managers to finance projects provided that they believed that it would benefit the business in the future. Indeed, one of the respondents had the following comments, '*If I am sure that a bank would lend me money for a project, then I would be prepared to pay a qualified consultant to prepare a business plan for me*'.

In Table 7.1 it is apparent that seven sources of advice, plus the other sources of advice, had levels of use which were less than 15%. More specifically the levels of use were as follows, NBSSI (14.3%), others (12.5%), universities and

polytechnics (10.4%), Empretec (8.2%), Gratis/ITTU (8.0%), Technoserve (7.4%), APDF (5.5%). The other sources which were grouped together included the Ghana Tourist Board, Veterinary Services of Ghana, and the Agricultural Extension Services.

Empretec, NBSSI, Gratis/ITTU, and Technoserve are institutions which have been set up with the main objectives of providing advisory services to small businesses in Ghana but their levels of use are modest. For instance, the NBSSI is a government apex body set up with the main objective to 'assist the Ministry of Trade and Industry (MOTI) in the formulation, development and implementation of national programmes aimed at accelerating the growth of small scale industries in Ghana' GIIPIC Pt III (2002: 18). In terms of ranking NBSSI came tenth with only 14.3% of the respondents using it. Although NBSSI had been bedevilled with inadequate logistics and human resource problems (Aryeetey and Ahene, 2004), considering the coverage of their operations it appeared that their performance was below expectations. Nevertheless, this finding confirmed the results of various studies undertaken in Britain, Australia and Africa that the use of business advice services provided by the government is relatively low when compared with other suppliers (Ramsden and Bennett, 2005; Jay and Schaper, 2003; Manuh, 1999).

GRATIS or ITTU was also established by the Ghanaian government to provide advice on technological related matters to small businesses. However, the performance of GRATIS/ITTU was again disappointing. Comparing the Gratis/ITTU operational coverage with NBSSI one would be tempted to say that Gratis/ITTU performed better than the NBSSI because the later operates in all the regional capital and two thirds of the district capitals while the former operates only in the regional capitals.

On the other hand, Empretec is a private institution with the objective of providing business advisory services to growth oriented small businesses (Gibson, 1999). Under the Empretec scheme the users were supposed to pay the full cost of the services provided. One may therefore be tempted to conclude that the low rate of use of Empretec was probably the result of the fees being charged by the foundation. The analysis presented in the next chapter in large part supports this argument. However, businesses will find money if they are being offered a quality advice service; and this seems plausible given the higher use of consultants by the small businesses.

Technoserve and APDF are non-governmental organisations set up to provide business development services to small businesses in Ghana. The low usage of these schemes could probably be attributed in part to the nature of the services being provided. In recent years Technoserve Ghana have focused their activities on businesses in the pineapples, natural products and grains sectors of the economy. The APDF project on the other hand, provided external supports services to small businesses through its Enterprise Support Service. It is important to note that the majority of its projects had focused on indirect services in the form of capacity building programmes and enterprise support activities for consultants, employees of financial institutions, and business associations in Ghana. Given the nature of services and the target clients of these schemes, it was obvious that most small businesses in the manufacturing and the service sectors appeared to have had little information about kind of services being provided by these organisations, hence their poor performance.

For the university and the polytechnic as a supplier of external advice, the usage level was higher than the Empretec, GRATIS, Techoserve and the APDF,

however, their performance was not satisfactory when relatively ranked with all the other suppliers. This result is not surprising since similar observations had been made in Britain where colleges and the universities had been identified to provide significant roles in the provision of management training and business advisory services although the levels of use had been low (Berry et al., 2006). The above analysis confirms Barr's (1999: 129) observation in Ghana that 'the existing networks are substituting for formal market-supporting institutions'.

7.5 The Number of sources of advice used

This section analyses the use of business advice based on the number of sources used overall. That is, the take-up of each source is analysed depending upon whether the business used a single source, 2 sources, 3-5 sources, or 6 or more sources of advice. 10.3% of the respondents used a single source of external advice, 12.4% used two sources, 40.3% used three to five sources, and 37% used six or more sources (Table 7.2). In other words, approximately one in ten of the users sought advice from only one source, and, approximately one in eight respondents used two sources; taken together the users of one or two sources represent low users of business advice. Four out of ten respondents were medium users of advice using 3-5 sources, and lastly, approximately three out of eight of the respondents were heavy users of advice using 6 or more sources.

A careful examination of Table 7.2 revealed that friends and relatives were the most important source of advice used by the most of the respondents who used one source. 38.8% of the respondents used friends and relatives as their sole source of advice, followed by customers with 30.6% and the third position was occupied by business associates with 12.2%. Banks were the fourth most used source with 6.1%

use by the single users of advice. Suppliers and trade and professional associations were the joint fifth ranked source with 4.1% of the respondents.

Table 7.2: Sources of advice from sole and multiple sources (percentage of respondents using each source who use it as a sole source, or as one of two, 3-5, or 6 or more services).

Source	Sole Source	2	3-5	6 or more
Accountant	2.0	15.3	31.8	81.4
Solicitor	2.0	3.4	14.1	59.3
Bank	6.1	3.4	38.0	84.7
Customer	30.6	67.8	91.1	96.0
Business Associates	12.2	20.3	43.2	84.2
Friends /relatives	38.8	39.0	69.8	83.1
Suppliers	4.1	28.8	47.9	88.1
Consultants	0	3.4	6.8	44.6
Chamber of Commerce	0	1.7	2.1	26.6
Trade/Professional Association	4.1	3.4	26.0	55.9
NBSSI (BAC)	0	3.4	7.3	30.5
EMPRETEC	0	1.7	0	22.0
TECHNOSERVE	0	0	3.6	16.4
APDF	0	0	0	15.3
GRATIS/ITTU	0	0	1	20.9
University/Polytechnic	0	1.7	3.1	24.9
Others	0	6.8	9.9	12.5
N	49	59	192	177

Thus, for the sole sources users of advice, friends and relatives, customers, business associates and suppliers taken together represent 85.7% of the first group. This contrasts with previous research in the UK which found that the professional specialists of accountants, banks and solicitors represented 66.6% of the businesses who used one source of advice (Bennett and Robson, 1999), but compare favourably to a number of studies undertaken in Ghana (See Buame, 1996; Barr, 1999).

Furthermore, both public and the private institutions which were set up with the purpose to provide advisory services received no use at all from the users of sole sources of use. This result again demonstrates that interpersonal and social networks play an important a role as information and advisory sources to small businesses in

Ghana. This finding is supported by Buame (1996: 200) who observed in Ghana that '*interpersonal sources are considered the most important sources of information and even for acquiring certain skills, such as use of special machines and equipment that are acquired by friends in the locality*'. A similar finding was also made by Malecki (1997). The main reason why interpersonal sources of information had become prominent as an information sources for small businesses in Ghana could also be explained by Buame (1996: 200) who pointed out that '*due to the inadequacies of the institutional environment, informal networking with the extended family as its nucleus and pivot has become a "strategic" means of having access to suppliers, customers, financiers, and authorities in government establishment*'.

Next, the take-up of advice from the users of two sources of advice is examined. Customers top the list with 67.8%, followed by friends and relatives who obtained 39%. Suppliers and business associates were used by 28.8% and 20.3% respectively, of the users of two sources. Comparing the users of a sole source to two sources it was found that the performance of the institutional advice providers improved marginally - NBSSI moved from 0% to 3.4%, and Empretec moved from 0% to 1.7%, respectively. However, Technoserve, APDF, and GRATIS/ITTU were not used at all by any of the users of two sources of advice.

The story follows a similar trend with regard to the use of three to five sources; customers, friends and relatives, suppliers and business associates were again the four most used sources of advice. Interestingly, banks (38.0%) and accountants (31.8%) became more important for the users of 3-5 sources of advice, in comparison to users of fewer sources. Here the results could be explained that as the business expands owner-managers were more likely to seek advice from professional sources

than the personal contacts because according to Hill et al. (1999: 77) 'these contacts did not always have the necessary [know-how] and expertise'.

However, there were more substantial changes with the use of six or more sources. Customers still maintained the top position with 96%. Thus, for the heavy users of business advice nearly all of the users had sought advice from customers. Suppliers (88.1%), banks (84.7%), business associates (84.2%), friends and relatives (83.1%) and accountants (81.4%) were all used by more than 80% of the heavy users of advice. Furthermore, banks, accountants and solicitors made substantial gains once again by moving to the third, sixth, and seventh positions. Thus, the professional specialists of accountants, banks and solicitors tend to be used mainly by the heavy users of advice. It was clear that nearly all of the users of NBSSI, Empretec, Gratis/ITTU, Technoserve, and APDF were heavy users of business advice from 6 or more sources. So, whilst there are organisations which were set up to provide business advice in Ghana they are clearly not operating as envisaged by the Government. These sources do not act as a sole source of advice; they are used by none, or very few, of the users of two sources or from 3-5 sources. In sum, these findings appeared to suggest that in Ghana personal contacts serve as the most important single source of advice for many businesses until a time when technical and expert advice are needed before government and private advisory agencies are contacted.

7.6 Impact of external business advice on the attainment of business objectives

The debate on the impact of outside assistance to small business performance has received a substantial amount of attention in most Western countries. In Africa it appears that most studies in this area have been based on project reports or 'desktop'

research (See Kapila and Mead, 2002; Gibson, 1999; and Manuh, 1999). Manuh (1999) argued that formal advice providers had made little impact in terms of small business development in Africa. Kapila and Mead (2002) and Gibson (1999) on the other hand, had concluded that external support had made an important impact on small business development in Africa. For instance, Gibson (1999) observed that various assistance programmes provided by Empretec Ghana made significant impact on the small businesses that used the services in terms of sales and employment growth. Given the ongoing debate about the impact on the use of external advice on small business performance, this section attempts to examine the impact of the use of business advice sources which were used upon on business performance based upon the owner-managers' perception, using a four-point scale of, no impact, moderate impact, important impact, and crucial impact. As was the case in the previous chapter it was felt that combining together two categories – in this case important and crucial impact would allow for greater ease of the interpretation of the results. The main analysis which is reported in the chapter is based upon the percentage of the respondents who mentioned important or crucial impact. However, for completeness Table 7.3 and Figure 7.2 shows the impact results for all four categories.

Table 7.3 and Figure 7.2 show substantial differences in the level of impact obtained from the various suppliers of external advice. It is important to note that the first three suppliers (customers, accountants, and suppliers) with the highest respondents mentioning important and crucial impact received over 60% but less than 6.5% of no positive impact responses. However, the last three suppliers (APDF, Chamber of Commerce, GRATIS/ITTU, Technoserve) at the bottom of the ladder received less than 40% of important and crucial impact response as against over 40%

of no positive impact responses. This result compares favourably to recent studies undertaken by Ramsden and Bennett (2005), Pentax Management Consultancy Services (2005) and Berry et al. (2006).

Table 7.3: Assessment of the impact of the business advice.

	No positive impact	Moderate Impact	Important Impact	Crucial Impact	N
Accountant	6.5	23.9	50.7	18.9	201
Solicitor	13.3	28.9	47.7	10.2	128
Bank	7.9	35.0	41.6	15.4	214
Customer	2.4	19.5	50.9	27.2	379
Business Associates	6.3	35.9	46.0	11.8	237
Friends /relatives	7.3	34.4	48.0	10.3	302
Suppliers	6.5	25.4	50.0	18.1	248
Consultants	20.2	14.3	40.5	25.0	84
Chamber of Commerce	39.6	29.2	25.0	6.3	48
Trade/Professional Association	11.5	33.6	48.9	6.1	131
NBSSI (BAC)	34.8	13.6	39.4	12.1	66
EMPRETEC	47.4	7.9	36.8	7.9	38
TECHNOSERVE	47.1	11.8	26.5	14.7	34
APDF	61.5	11.5	11.5	15.4	26
GRATIS/ITTU	45.7	17.1	20.0	17.1	35
University/Polytechnic	29.3	26.8	26.8	17.1	41
Others	26.5	20.4	34.7	18.4	49
All	12.1	26.6	45.1	16.2	2261

Figure 7.3 shows the percentage of respondents reporting important or crucial impact and that the use of customers had the highest impact on the attainment of business objectives. 78.1% of the respondents that had used customers reported an important or a crucial impact on the attainment of their business objectives. This is followed by accountants with 69.6% as an important and a crucial impact on the achievement of the business objectives. Suppliers occupied the third position with 68.1%, and consultants were in fourth position with 65.5%. These results reflect the findings of similar studies undertaken in the UK (Bennett and Robson, 2003; Ramsden and Bennett, 2005; Berry et al., 2006) where the use of customers,

suppliers and accountants were reported to have had greater impact on the business performance.

In a more recent study undertaken by Ramsden and Bennett (2005: 237) in the UK, it was revealed that the private sector sources of advice received the highest impact with suppliers receiving 100% satisfied and very satisfied level, followed by customers (97.8%) and accountants (92.3%). Ramsden and Bennett (2005) reported that the public sector sources had the lowest impact ranging from 63% and 97%.

Levels of important or crucial impact of between 50% to 60% was found for friends and relatives, solicitors, business associates, banks, trade and professional associations, the other sources group and NBSSI. Among the professional institutions which were set up specifically to provide advice, NBSSI was the only institution where more than 50% of the respondents reported an important or a crucial impact on the achievement of business objectives (See figure 7.3). For other institutional sources such as Empretec, Technoserve, Universities and Polytechnics, and Gratis/ITTU, less than 50% of the users of the sources reported an important or a crucial impact. Whilst for the non-institutional sources, Chambers of Commerce reported the lowest users` impact assessment. However, overall APDF was found to have the lowest overall impact. This result could be attributed to the nature of the service being provided to small businesses by APDF. That is to say, APDF did not provide direct support services to small business but instead offered services through other business support services. One probable explanation of the low impact of formal business support could be found in the words of Manuh (1999: 112) 'support agencies in Africa, on the whole, try to do too much, with the result that they end up doing nothing really well'. Tagoe et al. (2005: 340) made a similar observation for NBSSI in Ghana.

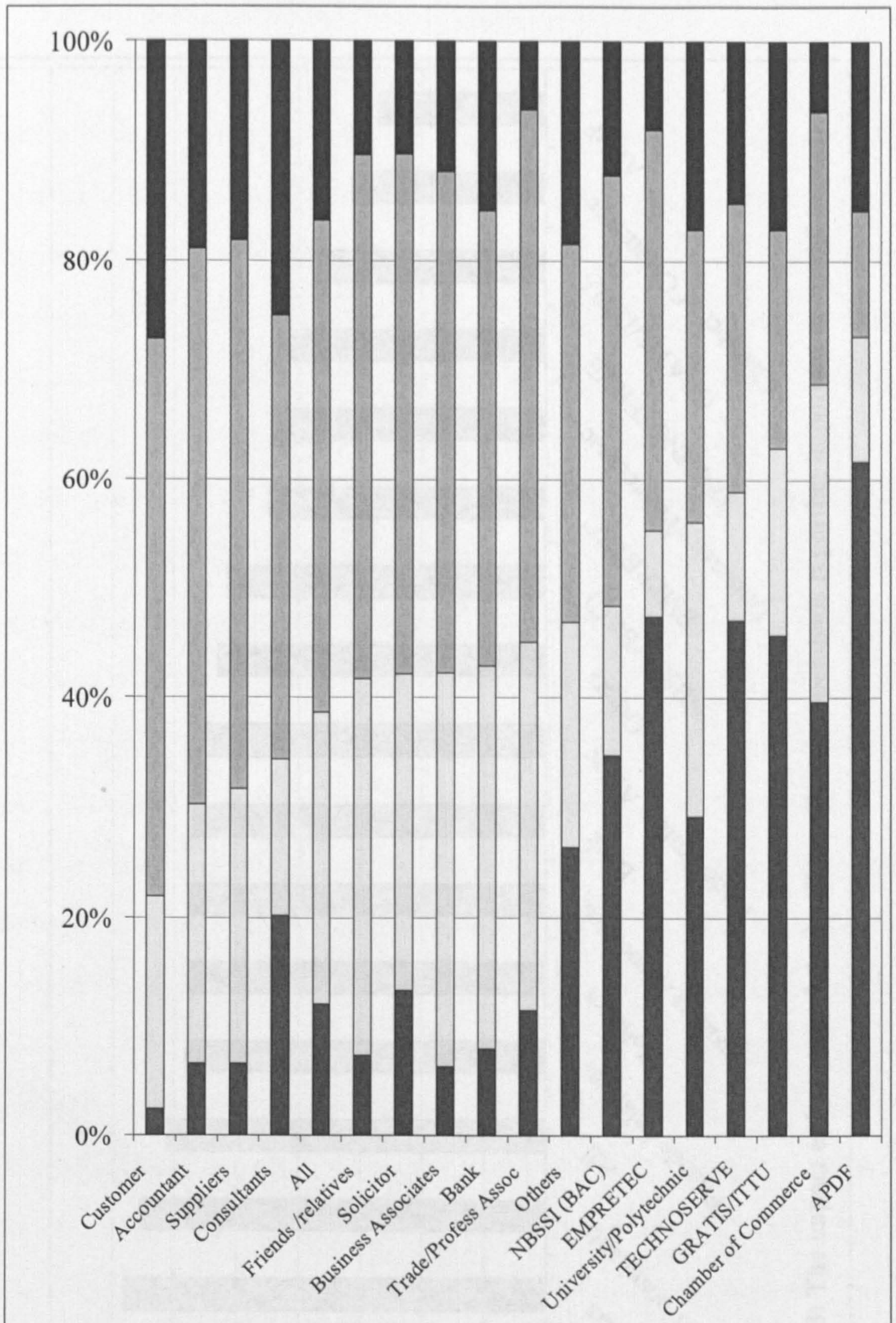


Figure 7.2: The impact of business advice in Ghana
(% of respondents reporting impact scores)

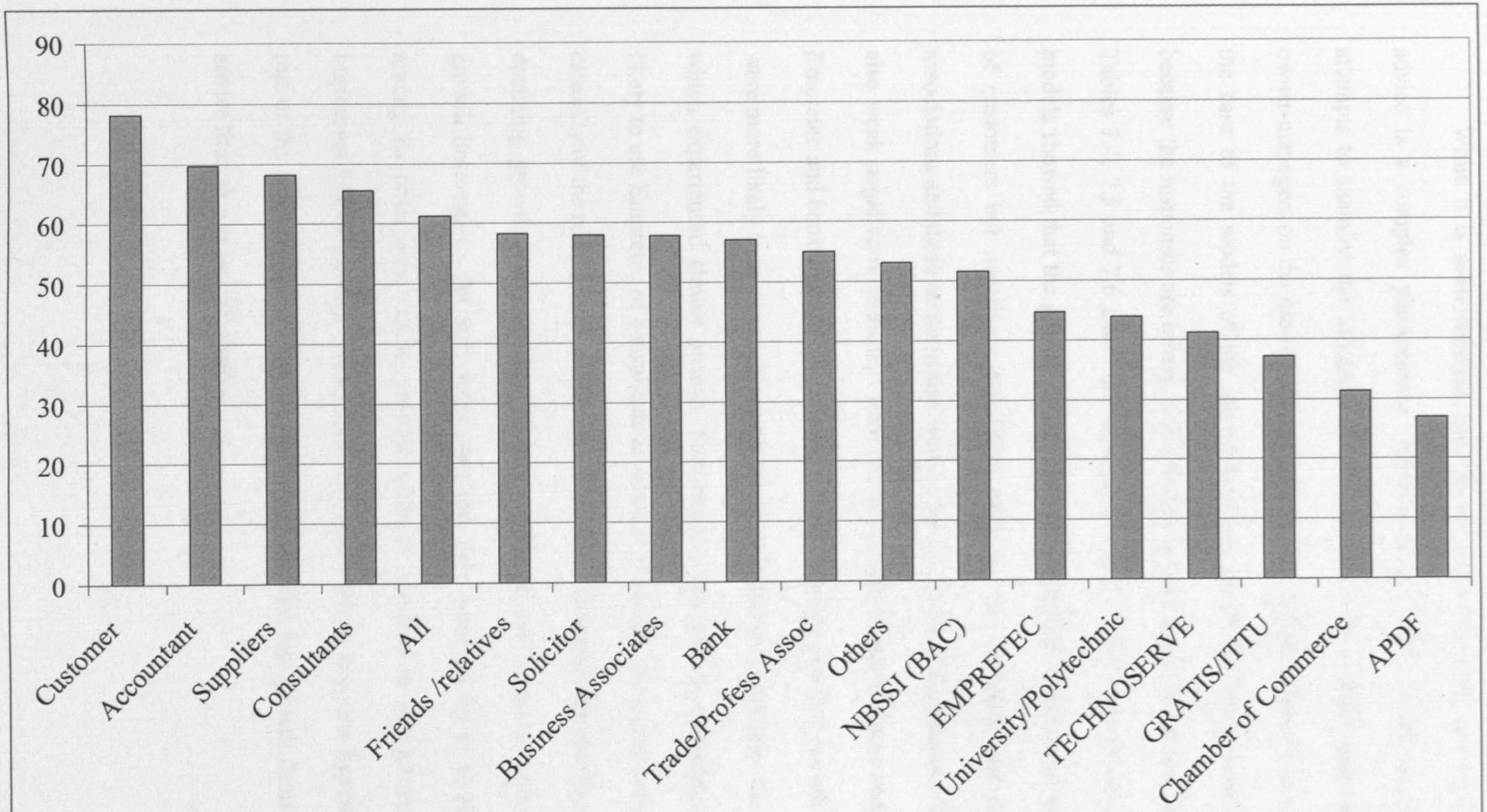


Figure 7.3: The impact of business advice in Ghana (% of respondents reporting important or crucial impact)

7.7 Regression Analysis – Use of External Business Advice

While it is acknowledged that the process of seeking and using business advice is a complex phenomenon (Johnson et al. 2004: 3) this section further attempts to examine the influence of the characteristics of the businesses and the owner-managers on the use of external advice using multiple regression analysis. In the case of the models of the use of business advice the logit models are used because the responses are binary, 1 if a source is used and 0 if a source is not used. Tables 7.4, 7.5 and 7.6 show the regression results of the logit models. First, the models showed that the growth of the business is positively associated with the use of customers but negatively associated with the use of trade and professional associations and these relationships were at the 1% levels of significance. There were also weak negative relationships between the growth of the business and the use of Empretec and consultants. These results seemed to imply that fast growth businesses were more likely to use customers as a source of business advice than the businesses which experienced slower growth. Furthermore, fast growth businesses were less likely to use Empretec or consultants as sources of advice. As needs to be noted, the causality of the relationship is difficult to establish. However, the results suggest that declining growth businesses are the more likely to use Empretec rather than fast growth businesses - the very businesses that they were set up to serve. That is, among its objectives was to provide advisory services to the growth- oriented businesses (APDF, 2002). Apart from customers which supports hypothesis 2, the rest of the sources did not support the hypothesis that fast growth firms seek more advice than slower growth firms.

Table 7.4 Estimates of a logit model of the expectation of seeking business advice, by supplier source

	Accountant	Solicitor	Bank	Customer	Business Associates	Friends/ relatives
Growth	-0.009 (0.006)	-0.007 (0.006)	-0.006 (0.005)	**0.025 (0.008)[a]**	-0.002 (0.005)	-0.001 (0.005)
Manufacturing	**1.001 (0.364)[a]**	0.210 (0.396)	0.465 (0.314)	-0.264 (0.391)	-0.241 (0.306)	-0.161 (0.302)
Services	**1.464 (0.366)[a]**	**0.812 (0.391)[b]**	**0.655 (0.318)[b]**	-0.089 (0.403)	0.127 (0.309)	-0.029 (0.308)
Size (Log)	**1.263 (0.338)[a]**	**0.981 (0.361)[a]**	**0.958 (0.315)[a]**	0.569 (0.398)	-0.458 (0.310)	0.392 (0.305)
Exporter	**0.954 (0.285)[a]**	**1.211 (0.287)[a]**	**0.703 (0.269)[a]**	0.567 (0.388)	**0.865 (0.274)[a]**	0.288 (0.270)
Innovator	**0.744 (0.262)[a]**	**0.941 (0.320)[a]**	**0.929 (0.248)[a]**	0.372 (0.307)	**0.763 (0.239)[a]**	-0.100 (0.240)
R&D	0.261 (0.286)	0.370 (0.305)	-0.205 (0.274)	-0.371 (0.350)	**0.585 (0.274)[b]**	0.224 (0.275)
Training	0.164 (0.250)	0.084 (0.278)	0.271 (0.236)	-0.319 (0.307)	**0.708 (0.232)[a]**	0.124 (0.227)
Family Business	**-0.530 (0.264)[b]**	-0.425 (0.283)	0.180 (0.250)	0.034 (0.316)	-0.217 (0.247)	0.171 (0.243)
Gender	0.000 (0.350)	-0.012 (0.391)	-0.477 (0.330)	-0.806 (0.512)	-0.091 (0.328)	-0.377 (0.340)
Age owner-manager	**2.000 (1.107)[c]**	1.853 (1.240)	2.510 (1.048)b	**-2.183 (1.325) [c]**	**2.414 (1.037) [b]**	-1.005 (1.021)
Postgrad/ Prof/ Degree/ 'A' Level	**1.160 (0.311)[a]**	**1.202 (0.355)[a]**	0.702 (0.290)b	0.364 (0.371)	0.348 (0.290)	0.054 (0.285)
Technical/ Vocational/ Apprenticeship	0.481 (0.324)	**0.669 (0.391)[c]**	-0.397 (0.310)	**1.192 (0.432)[a]**	0.462 (0.300	0.395 (0.308)
'O' Levels	0.458 (0.351)	0.437 (0.424)	**0.613 (0.326)[c]**	0.002 (0.397)	0.177 (0.324)	-0.173 (0.314)
Conurbation	**0.986 (0.309)[a]**	**1.342 (0.384)[a]**	**0.654 (0.281)b**	0.320 (0.365)	**0.991 (0.275)[a]**	**-1.174 (0.302)[a]**
Large Town	0.365 (0.369)	0.432 (0.461)	0.232 (0.342)	**-0.903 (0.410) [b]**	0.057 (0.336)	**-0.807 (0.362)[b]**
Cons	**-7.316 (1.989)[a]**	**-7.620 (2.233)[a]**	**-6.433 (1.866)[a]**	**5.180 (2.342) [b]**	**-5.214 (1.836)[a]**	2.925 (1.802)
Log likelihood	-233.600	-198.776	-258.416	-174.089	-265.523	-268.544
% Correctly Classified	73.02	76.64	68.93	83.45	69.16	64.4
N	441	441	441	441	441	441

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

Table 7.5 Estimates of a logit model of the expectation of seeking business advice, by supplier source

	Suppliers	Consultants	Chamber of commerce	Trade/ Professional Association	NBSSI	Empretec
Growth	-0.003 (0.005)	**-0.011 (0.007)** [c]	-0.009 (0.009)	**-0.020 (0.006)** [a]	0.002 (0.007)	**-0.019 (0.011)** [c]
Manufacturing	-0.019 (0.296)	0.246 (0.411)	0.620 (0.604)	0.008 (0.329)	**0.777 (0.456)** [c]	-0.144 (0.619)
Services	-0.273 (0.299)	0.068 (0.418)	**0.989 (0.598)** [c]	**0.627 (0.330)** [c]	0.510 (0.469)	0.169 (0.595)
Size (Log)	**1.385 (0.316)** [a]	0.574 (0.374)	0.161 (0.489)	**1.375 (0.330)** [a]	-0.275 (0.418)	0.423 (0.549)
Exporter	0.091 (0.265)	0.194 (0.314)	**0.781 (0.379)** [b]	**0.579 (0.272)** [b]	**1.048 (0.309)** [a]	0.686 (0.434)
Innovator	0.297 (0.236)	**0.871 (0.365)** [b]	0.240 (0.440)	0.106 (0.261)	**1.008 (0.373)** [a]	**1.422 (0.657)** [b]
R&D	-0.419 (0.267)	0.472 (0.305)	0.167 (0.410)	**-0.566 (0.294)** [c]	0.403 (0.331)	0.116 (0.458)
Training	-0.276 (0.226)	0.357 (0.10)	0.741 (0.410) [c]	**0.552 (0.250)** [b]	-0.315 (0.318)	-0.241 (0.457)
Family Business	0.082 (0.242)	0.122 (0.309)	-0.366 (0.381)	**0.728 (0.281)** [b]	0.374 (0.338)	0.036 (0.438)
Gender	**-0.564 (0.326)** [c]	**-0.831 (0.377)** [b]	-0.008 (0.543)	**-0.689 (0.335)** [b]	0.515 (0.469)	**-1.282 (0.495)** [a]
Age owner-manager	-0.482 (1.002)	0.124 (1.352)	0.076 (1.709)	1.514 (1.103)	2.058 (1.410)	1.868 (2.059)
Postgrad/ Prof/ Degree/ 'A' Level	**0.687 (0.289)** [b]	**1.445 (0.403)** [a]	**0.898 (0.480)** [c]	-0.118 (0.309)	0.178 (0.383)	**1.347 (0.578)** [b]
Technical/ Vocational/ Apprenticeship	-0.159 (0.284)	0.552 (0.450)	-0.138 (0.584)	-0.115 (0.312)	-0.605 (0.453)	-0.396 (0.787)
'O' Levels	0.235 (0.311)	0.530 (0.479)	0.001 (0.615)	**-0.673 (0.379)** [c]	-0.178 (0.470)	-1.125 (1.130)
Conurbation	**0.608 (0.260)** [b]	0.540 (0.406)	**1.335 (0.640)** [b]	-0.187 (0.283)	**-0.954 (0.359)**[a]	-0.244 (0.573)
Large Town	0.052 (0.320)	0.285 (0.480)	0.473 (0.746)	-0.399 (0.358)	-0.356 (0.432)	0.214 (0.667)
Constant	-0.180 (1.760)	-3.869 (2.409)	**-5.131 (3.059)** [c]	**-4.745 (1.946)** [b]	**-6.471 (2.533)** [b]	**-6.571 (3.774)** [c]
Log likelihood	-275.239	-178.075	-121.493	-241.627	-160.223	-90.510
% Correctly Classified	65.31	82.54	90.48	72.79	86.17	93.65

N==441

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

Table 7.6 Estimates of a logit model of the expectation of seeking business advice, by supplier source

	Technoserve	APDF	GRATIS/ ITTU	University/ Polytechnic
Growth	-0.013 (0.010)	-0.012 (0.012)	-0.010 (0.010)	-0.013 (0.009)
Manufacturing	**-1.989 (0.575)** [a]	-0.183 (0.770)	0.744 (0.669)	-0.709 (0.458)
Services	**-1.085 (0.472)** [b]	0.393 (0.726)	0.900 (0.670)	-0.632 (0.451)
Size (Log)	0.401 (0.502)	-0.163 (0.663)	0.333 (0.534)	-0.097 (0.446)
Exporter	0.335 (0.456)	0.795 (0.517)	0.352 (0.428)	0.164 (0.389)
Innovator	0.501 (0.497)	1.177 (0.797)	**1.056 (0.526)** [b]	**0.952 (0.464)** [b]
R&D	-0.114 (0.484)	0.193 (0.530)	-0.288 (0.469)	0.001 (0.397)
Training	-0.308 (0.433)	0.324 (0.546)	-0.151 (0.414)	0.100 (0.370)
Family Business	0.280 (0.475)	0.252 (0.546)	-0.119 (0.411)	-0.168 (0.366)
Gender	-0.595 (0.559)	**-1.459 (0.570)** [a]	0.510 (0.646)	0.076 (0.531)
Age owner-manager	-0.446 (2.035)	-0.259 (2.502)	1.578 (1.843)	-1.408 (1.670)
Postgrad/ Prof/ Degree/ 'A' Level	0.583 (0.549)	**1.433 (0.727)** [b]	0.545 (0.513)	**1.655 (0.525)** [a]
Technical/ Vocational/ Apprenticeship	0.278 (0.584)	-0.963 (1.201)	-0.383 (0.661)	0.452 (0.612)
'O' Levels	-0.644 (0.830)	-0.001 (0.963)	0.444 (0.600)	0.968 (0.598)
Conurbation	-0.541 (0.495)	0.950 (0.835)	0.606 (0.588)	-0.492 (0.444)
Large Town	-541 (0.495)	0.169 (1.009)	0.274 (0.706)	-0.665 (0.552)
Constant	-0.986 (3.603)	-4.137 (4.484)	**-7.826 (3.329)** [b]	-0.491 (2.692)
Log likelihood	-99.322	-69.296	-107.238	-127.476
% Correctly Classified	92.97	95.01	92.52	90.02

N==441

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

For the sector and the use of external advice the logit model appeared to show that compared with the businesses in the agricultural sector, manufacturing businesses were more likely to use accountants while service businesses were more likely than agricultural businesses to use accountants, solicitors and the banks. Additionally, the model showed a positive but weak statistical association between manufacturing and the use of NBSSI. However, the businesses in the service sector were associated with the use of Chambers of Commerce and the trade and professional associations. In contrast with the above findings, the use of Technoserve is negatively associated with manufacturing and the service businesses. Apparently, this result is in line with the objectives of the scheme as it aimed at providing advisory services to businesses in the agricultural sector (Technnserve Ghana Company Profile).

The size of the business has been identified in the literature as the most important factor in determining the use of business advice (Ramsden and Bennett, 2005; Johnson et al. 2004; Bennett and Robson, 2003). For each of the professional specialists of accountants, banks, and solicitors the use increased with business size and these were all statistically significant at the 1% level. With regard to the accountants, Kirby and King (1997: 298) observed that micro and small businesses hardly employ the services of accountants because of the high cost involved and also because of the belief that accountants lacked managerial expertise to advice them on managerial issues (Burke and Jarratt, 2004). There were also positive statistically significant relationships between business size and the use of suppliers, and trade and professional associations.

For the sector, hypothesis 7 is not supported while hypothesis 1 on firms' size is supported and that confirms Barr's (1999: 130) conclusion that 'Entrepreneurs

with larger, non-technical enterprises tend to maintain large, diverse, less cohesive networks that provide access to information about technologies and markets and generate collective economies of scale'.

In most cases, smaller sized businesses hardly sought advice from professional specialists and generalist sources. An owner-manager had this to say: '*Although we know that external business advice can help in our business operations, we decided not to contact them because we are operating on a small-scale level'.*

Businesses in the export sector were also found to be more likely associated with the use of private sector sources of advice from accountants, solicitors, banks, business associates, chambers of commerce, and trade and professional associations. Surprisingly, the NBSSI is the only public sector scheme which was positively associated with businesses in the export sector. This result further supported the earlier observation that the uncertainties and the complexities involved in the international business would require exporting businesses to seek professional advice from sources such as accountants, solicitors and the banks than the non-exporting businesses (Johnson et al. 2004; Leonidou and Adams-Florou, 1999). Furthermore, the strong positive asociation between the exporting businesses and the use of advice from sources such as business associates, Chambers of Commerce, trade and professional association appeared to suggest that business networks serve as an important information source for exporters and also supports Leonidou and Adams-Florou (1999: 42) assertion that 'exporters tend to rely more on personal sources, rather than impersonal sources when gathering export information'. This finding also supports the observation made by Wolf (2004) and Ibeh (2003) that exporters made regular contacts with family, business associates and external support services. The analysis therefore confirms hypothesis 5 that export businesses were more likely

to seek external advice than non-exporters.

For innovator businesses the model revealed interesting results which appeared to suggest that businesses involved in innovating activities were more likely to seek advice from both the private and the public sources of advice; from professional specialist (accountants, solicitors, and banks), business associates and consultants. Furthermore, innovative businesses appeared to have also used formal (public) sources of advice such as NBSSI, Empretec, Gratis/ITTU and the university and the polytechnics. This result provides good news for the organisations set up to provide business advice since it suggests that businesses that were more likely to undertake innovative activities were more likely to seek advice from sources such as NBSSI, Empretec, Gratis/ITTU, and the polytechnic and the universities. Freel (2000: 77) also found innovative small firms to be significantly associated with the use of Business Links, TECs and the Universities. This result supports Chipika and Wilson's (2006) work in Zimbabwe. Robson et al. (2006) and Sverrisson's (1997) studies in Ghana suggest that business contacts and networks were associated with innovation. The hypothesis 4 that innovative businesses establish more external contacts than non-innovating businesses is therefore supported.

However, businesses who have undertaken R&D expenditure were not significantly associated with any of the sources of advice with the exception of the use of the business associates where positive correlation was found, and trade and professional associations which appeared with positive and negative signed coefficients, respectively. In view of the above findings, hypothesis 6 was not supported.

With regard to the influence of the provision of training on the use of the business advice, the models revealed no association with the provision of training

and the use of most of the private and all the public or formal sources of business advice. However, the models provided strong and positive associations between the businesses which provided training and the use of business advice from sources such as business associates, and trade and professional associations, and a weak association with the use of Chambers of Commerce. This finding supports the observations made by Velenchik (1995) and McGrath and King (1999) that apprenticeship training plays an important role in the provision of skilled labour for small businesses in Ghana and West Africa, respectively. Thus, the results which are reported in this section demonstrate that hypothesis 3 is not supported.

The influence of the family business on the use of business advice was not statistically significant with the exception of the use of accountants and trade and professional associations. For instance, the model showed that family businesses were less likely to use accountants as source of external advice but more likely to use trade of professional associations.

Businesses located in the conurbation areas compared to businesses in small towns were more likely to use business advice from accountants, solicitors, banks, business associates, suppliers, and chambers of commerce. Intuitively, this finding was evident during the fieldwork when it became apparent that many businesses in the Greater Accra region had never heard of the NBSSI, and thus they had not used that scheme's services. The individualistic lifestyle in the conurbation areas as compared to the communal lifestyle in the small towns appeared to have influenced the use of the professional business advice by the owner-managers in the conurbation areas (Buame, 1996). Another interesting revelation by the result was the negative correlation between the owner-managers in the large towns and the use of customers. This relationship appears to demonstrate that owner-managers in the large towns

were least likely to use customers when compared with the owner-managers in the small towns. On the other hand, businesses located in small towns were the least likely to use advice from professional specialists or generalists and the public and government agencies as one of the respondents indicated:

'*They [the government agencies] have [a] lack of financial skills. No training from any angle, even the Ghana Tourist Board*'.

'The training providers are not available. We train the workforce ourselves to fit our operation'.

This finding appeared to confirm the earlier observation where the location of the business was found to have had significant influence on the use of external advice, and also is consistent with Sleuwaegen and Goedhuys' (2002) study. Thus, hypothesis 9 is supported by the results.

Next, attention centres upon the characteristics of the owner-managers. For the gender of the owner-manager, the model did not reveal any significant statistical association with the use of professional specialists such as accountants, solicitors, and banks. Also there was not any relationship with the use of customers, business associates or friends or relatives. However, with regard to the use of suppliers, consultants, trade and professional associations, Empretec, and APDF the model showed for the use of those sources, the male owner-managers were less likely to use them while the female-owner managers, on the other hand, were more likely to use them. This result confirms the hypothesis that low educational qualifications and limited managerial experience encourage the female owner-managers to rely more on business networks to improve upon their performance (Ghana Living Standard Survey, 2000; McDade and Spring, 2005).

On the age of the owner-manager, the study showed that older owner-managers

were more likely to use private sources of advice such as accountants, banks, and the business associates but were less likely to use customers although the statistical significance with reference to customers and accountants were weak. This result is surprising and contradicts the view that older owner-managers were more likely to be experienced in life or business than the young owner-managers hence, less likely to seek business advice than the young owner-managers as pointed out by Cragg and King (1988). The above analysis demonstrates that hypothesis 10 with regard to gender is supported whilst hypothesis 11 on age was not confirmed.

Finally, the educational background of the owner-manager appeared to have a significant influence on the use of external advice especially owner-managers with the A. level or higher qualifications. For instance, owner-managers with A. level or higher qualifications revealed a highly significant and positive correlation with the use of most of the private and the public sources of advice. However, with reference to the owner-managers with the technical, vocational or apprenticeship and those with the secondary school background, the data did not reveal any significant influence on the use of external advice with the exception of the use of customers which showed a positive relationship with the owner-managers with technical, vocational and the apprenticeship background. Furthermore, there was a positive relationship between the use of banks and the trade and professional associations with the owner-managers who had secondary education qualifications. The implication of these findings was that owner-managers with A. levels or higher qualifications were more likely to use external sources of advice than those with either technical, vocational or apprenticeship and the secondary school qualifications. Hypothesis 12 is therefore not confirmed. Table 7.6b provides a summary of the hypotheses tests results.

Table 7.6b Summary of hypotheses tests results

Variable	Results
Size H_1	Hypothesis 1 on firms' size is supported particularly for the use of professional specialists.
Growth H_2	Apart from customers which supports hypothesis 2, the rest of the sources did not support the hypothesis that fast growth firms seek more advice than slow growth firms.
Training H_3	The models revealed no association for the provision of training and the use of most of the private and all the public sources of business advice. Thus, the results which are reported in this section demonstrate that hypothesis 3 is not supported.
Innovation H_4	The hypothesis that innovating businesses establish more external contacts than non-innovating businesses was therefore supported.
Exporting H_5	The analysis confirms hypothesis 5 that exporting businesses were more likely to seek external advice than non-exporters.
R & D H_6	The hypothesis that expenditure on R &D is positively associated with the use business advice was not supported.
Sector H_7	For the sector, hypothesis 7 was not supported.
Family business H_8	Family businesses and the use of external advice were not statistically supported.
Location H_9	The location of the business was found to have had significant influence on the use of external advice. Thus, hypothesis 9 is supported by the results.
Gender H_{10}	Hypothesis 10 with regard to gender is supported. Female owner-managers were more likely to seek external advice than their male counterparts.
Age of Owner-manager/firm H_{11a} and $_{11b}$	Hypothesis 11 on age was not confirmed. Although age of the owner-manager was negatively associated with the use of business associates and the friends/relatives.
Education H_{12}	The implication of the findings with regard to the level of education and the use of business advice was that owner-managers with A. levels or higher qualifications were more likely to use external sources of advice than those with either technical, vocational or apprenticeship and the secondary school qualifications. Hypothesis 12 is therefore not confirmed.

7.8 Regression Analysis - the impact of the sources of advice used

In an attempt to develop the analysis further, the final section of the chapter employed the multivariate estimates of an ordered logit model to assess the influence of the business type and the owner-managers' characteristics on the level of impact of the use of business advice. Tables 7.7 and 7.8 present the regression results of the

level of impact of the use of business advice and characteristics of the business and the owner-manager. Due to the lack of comparable studies in this research area this analysis will use regression studies which have used data from the UK and other western countries. A careful examination of the tables revealed that there were few sources of advice which were found to be statistically significantly related to the business type and the characteristics of the owner-managers, in terms of impact assessment. A similar observation was also made by Robson and Bennett (2000: 1681). For Ghana the models of Chambers of Commerce, Technoserve, ADPF, and Gratis/ITTU estimates were not determined due to an insufficient number of observations. However, the other sources of advice which were regressed produced few instances where the level of impact with the use of external advice had correlated with the characteristics of the business and the owner-manager. This general finding appear to be supported by Bennett and Robson (2003b) which has also examined a wide range of sources of advice and found few correlation between the level of impact of advice used and the characteristics of the business and the owner-manager. The following paragraphs examine the few cases where significant correlations were found.

For growing businesses Table 7.8 revealed a significant positive correlation between the levels of impact and the use of sources such as friends and relative, suppliers and the University/ Polytechnics. This result probably implies that fast growth businesses that used these sources were likely to experience higher level of impact than the slow growth businesses. This observation further consolidates the earlier results obtained under the bivariate analysis especially for the use of suppliers and friends and relatives. However, it is important to note that Barry et al. (2006) found an inverse relationship between the level of impact obtained and the growth of

the businesses which usually used academic sources for advice.

With regard to the sector, manufacturing businesses were more likely than agricultural businesses to have higher impact from customers, but less likely than agricultural businesses to have higher impact from business associates. Similarly, service sector businesses, compared to agricultural businesses were statistically significant in two models, customers and NBSSI, where the regression results showed positive and negative signs, respectively. The implication of this result is that businesses in the service sector which use NBSSI as a source of external advice are likely to experience negative result but the same business would likely experience a higher impact from customers.

Furthermore, Table 7.8 presents an interesting picture with regard to the size of the business and the level of impact. The survey result shows a strong positive association between the size of the business and the level of impact obtained as a result of the use of solicitors, consultants, and the University/Polytechnics. For this finding, it could be speculated that medium-sized businesses which used these sources were likely to benefit more than the micro and small-sized businesses. Intuitively, this result appears to support the fact that the nature of advice provided by these sources are of more technical and complex in nature compared to the advice obtained from friends and relatives. Hence, the businesses which are likely to obtain higher impact are the ones with higher managerial skills which are invariably the medium-sized businesses.

Furthermore, the use of NBSSI and the University and Polytechnics by businesses which provided training to staff was more likely to result in negative impact than the businesses which do not provide training. This result could have serious implications for the NBSSI especially since it was set up to provide advisory

Table 7.7 Multivariate estimates of an ordered logit model of the impact of business advice, by supplier source

	Accountant	Solicitor	Bank	Customer	Business Associates	Friends/ relatives
Growth	0.006 (0.007)	-0.013 (0.008)	-0.012 (0.007)	0.008 (0.005)	0.019 (0.007)	**0.016 (0.006)** [b]
Manufacturing	0.022 (0.512)	0.250 (0.589)	0.545 (0.447)	**0.526 (0.295)** [c]	**-0.410 (0.385)** [a]	-0.113 (0.338)
Services	-0.346 (0.500)	-0.242 (0.578)	0.222 (0.441)	**0.618 (0.300)** [b]	-0.447 (0.387)	-0.134 (0.341)
Size (Log)	0.230 (0.417)	**1.320 (0.567)** [b]	0.399 (0.379)	0.051 (0.302)	-0.526 (0.384)	0.726 (0.341)
Exporter	-0.139 (0.319)	0.274 (0.392)	0.017 (0.311)	0.080 (0.255)	0.073 (0.300)	-0.138 (0.298)
Innovator	0.572 (0.384)	-0.239 (0.585)	-0.159 (0.375)	0.051 (0.254)	-0.521 (0.336)	-0.205 (0.278)
R&D	**0.582 (0.330)** [c]	-0.092 (0.435)	**0.624 (0.348)** [c]	0.070 (0.267)	0.167 (0.318)	-0.029 (0.301)
Training	0.183 (0.317)	-0.227 (0.454)	0.364 (0.321)	-0.168 (0.232)	0.134 (0.295)	-0.233 (0.268)
Family Business	0.493 (0.326)	0.224 (0.430)	-0.054 (0.331)	0.158 (0.254)	-0.076 (0.307)	0.062 (0.295)
Gender	-0.147 (0.442)	0.065 (0.594)	-0.084 (0.388)	0.076 (0.302)	-0.407 (0.413)	**-0.657 (0.348)** [c]
Age owner-manager	-0.376 (1.508)	0.623 (2.218)	0.606 (1.496)	-0.751 (1.048)	**-3.547 (1.458)** [b]	**-4.894 (1.338)** [a]
Postgrad/ Prof/ Degree/ 'A' Level	-0.156 (0.431)	0.067 (0.554)	0.387 (0.385)	0.180 (0.304)	0.005 (0.381)	-0.818 (0.340)
Technical/ Vocational/ Apprenticeship	-0.513 (0.482)	-0.441 (0.642)	-0.092 (0.466)	-0.508 (0.292) [c]	0.067 (0.389)	-0.438 (0.319)
'O' Levels	-0.476 (0.499)	-0.194 (0.720)	0.311 (0.450)	-0.053 (0.333)	-0.365 (0.423)	-0.352 (0.386)
Conurbation	0.475 (0.454)	-0.322 (0.697)	-0.303 (0.400)	0.608 (0.261) [b]	-0.101 (0.379)	-0.379 (0.292)
Large Town	**0.958 (0.544)** [c]	0.194 (0.861)	-0.048 (0.501)	0.631 (0.339) [c]	0.021 (0.478)	0.022 (0.362)
Log likelihood	-204.043	-128.826	-225.343	-365.207	-234.335	-288.024
Cut 1	-2.146 (2.735)	-0.256 (4.156)	-0.861 (2.690)	-4.276 (1.892)	-10.122(2.644)	-11.574 (2.373)
Cut 2	-0.161 (2.732)	1.616 (4.154)	1.468 (2.685)	-1.442 (1.852)	-7.582 (2.602)	-9.056 (2.327)
Cut 3	2.198 (2.733)	4.293 (4.175)	3.559 (2.698)	0.965 (1.852)	-5.029 (2.574)	-6.284 (2.294)
N	178	112	191	347	214	272

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

Table 7.8 Multivariate estimates of an ordered logit model of the impact of business advice, by supplier source

	Suppliers	Consultants	Trade/ Prof. Association	NBSSI	Empretec	University/ Polytechnic
Growth	**0.017 (0.007)** [b]	-0.004 (0.012)	0.012 (0.009)	-0.001 (0.015)	-006 (0.021)	**0.147 (0.058)** [b]
Manufacturing	-0.218 (0.358)	0.030 (0.740)	0.397 (0.619)	-1.423 (1.003)	-1.650 (1.416)	-0.504 (2.396)
Services	0.058 (0.374)	-0.491 (0.768)	-0.652 (0.544)	**-3.173 (1.088)** [a]	-1.783 (1.514)	-0.185 (2.418)
Size (Log)	0.252 (0.369)	**1.480 (0.661)** [b]	-0.410 (0.588)	1.122 (0.847)	0.575 (1.068)	**10.156 (3.075)** [a]
Exporter	-0.453 (0.315)	0.329 (0.549)	-0.355 (0.449)	-0.023 (0.625)	-0.633 (1.266)	1.703 (1.873)
Innovator	-0.033 (0.319)	-0.271 (0.685)	0.099 (0.488)	0.087 (0.721)	0.899 (2.391)	**-7.686 (3.172)** [b]
R&D	0.257 (0.338)	0.055 (0.559)	0.130 (0.515)	0.873 (0.662)	0.452 (1.247)	-0.274 (1.550)
Training	-0.326 (0.286)	0.479 (0.506)	-0.153 (0.465)	**-1.774 (0.764)** [b]	-0.142 (1.082)	**-8.084 (2.263)** [a]
Family Business	0.335 (0.334)	**1.248 (0.601)** [b]	0.300 (0.474)	1.09(0.788)	-0.478 (1.082)	**-2.219 (2.099)** [c]
Gender	-0.606 (0.375)	0.264 (0.658)	0.339 (0.525)	-0.454 (1.016)	-1.827 (1.453)	15.552 (8.858)
Age owner-manager	0.973 (1.336)	-03.730 (2.585)	0.740 (2.081)	**-5.106 (2.748)** [c]	4.259 (5.397)	**-25.411 (10.034)** [b]
Postgrad/ Prof/ Degree/ 'A' Level	0.476 (0.361)	0.199 (0.682)	-0.721 (0.564)	-2.240 (0.763)	0.594 (1.344)	0.492 (3.242)
Technical/ Vocational/ Apprenticeship	0.195 (0.390)	0.907 (0.849)	0.360 (0.565)	**2.625 (1.057)** [b]	1.439 (2.316)	5.666 (3.493)
'O' Levels	-0.162 (0.419)	0.533 (0.897)	-0.481 (0.698)	1.594 (1.020)	-	**21.193 (6.870)** [a]
Conurbation	0.134 (0.357)	-1.169 (0.895)	-0.433 (0.477)	**-1.686 (0.752)** [b]	0.080 (1.476)	-1.748 (3.214)
Large Town	0.520 (0.432)	-0.705 (0.969)	-0.657 (0.628)	0.539 (0.854)	0.087 (1.588)	1.232 (2.849)
Log likelihood	-251.859	-87.653	-123.316	-58.166	-26.298	-17.994
Cut 1	-1.209 (2.347)	-5.818 (4.751)	-2.148 (3.807)	-10.647 (5.110)	5.794 (9.385)	-29.626 (15.278)
Cut 2	0.959 (2.340)	-4.789 (4.731)	0.153 (3.796)	-9.867 (5.089)	5.982 (9.387)	-26.003 (15.064)
Cut 3	3.362 (2.351)	-2.852 (4.693)	3.339 (3.808)	-6.828 (4.962)	8.623 (9.444)	-21.616 (14.696)
N	224	73	119	60	30	35

NB Chambers of Commerce, Technoserve, APDF and Gratis/ITTU were not estimated due to insufficient observations.
[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

and training services to businesses with employees of between 1 to 29 (NBSSI, 2002). Notwithstanding this finding, further studies would be required to provide more explanation to this result.

Businesses which spent money on R&D were more likely to have higher impact with advice from accountants and banks than the businesses which did not spend money on R&D although the strength of this statistical association is weak. The higher impact obtained as a result of the use of the accountants and the banks demonstrates the ability of these sources to provide expert advice on finance to enable the owner-manager to undertake prudent financial decisions on R & D. For innovating businesses the used of the Universities and Polytechnics was likely to result to negative impact than the non-innovating businesses. To explain this result further, it is important to refer to Freel (2005: 421) study that found an inverse relationship between the growth in turnover and businesses which have links with the universities for innovative activities although the relationship was not statistically significant. The above findings re-echo McGrath and King's (1999: 218) call for educationalists in Africa to review the education institutions and training systems with regard to small businesses.

The age of the owner-manager was found to be statistically significant in 4 models of users' impact assessment scores, business associates, friends and relatives, NBSSI, and universities and polytechnics. In each case the age variables appeared with negatively signed coefficients indicating that younger owner-managers were more likely to have high impacts than older owner-managers. Given that the older owner-managers were less likely to have ambition to grow, the likelihood of these managers making maximum use of the advice sought from the sources mentioned above than the young owner-managers.

Compared to the owner-managers with junior school certificates or no education, there was no difference with impact scores assessments for those owner-managers with 'A' levels or higher levels of education, or those with secondary school certificates or 'O' levels; whilst those with technical, vocational or apprenticeships were less likely to have lower impact from NBSSI. Evidence from studies undertaken in Ghana (Sowa et al., 1992; Soderbom and Teal, 2002) has demonstrated that businesses located in the urban areas faced more competition from foreign businesses than those in the rural areas. Hence, businesses located in the conurbation areas that sought advice from customers were more likely to obtain a higher level of impact than that in other towns. For NBSSI, the negative impact received by businesses located in the conurbation could probably explain the low level of use by the businesses located in this area as compared to businesses located in the large and small towns.

7.9 Conclusion

This chapter has examined the sources of external advice used by small businesses in Ghana, the number of sources used, that is, whether single or multiple, the influence of the characteristics of the business and the owner-manager on the use of external advice, and the levels of impact of the advice used by these businesses. A list of 16 sources of external advice compiled of private and public sources was provided to the respondents to indicate the levels of use and satisfaction. Respondents were also made to include other sources that had not been included on the list.

The survey results on the level of use of external advice appeared to show that private sources of advice - especially the use of customers and friends and relatives

were the most widely used. For the most widely used sources, customers came first with 81.8% responses, followed by friends and relatives that obtained 66.1% responses, and thirdly suppliers which received 54.6% responses. Among the least used sources, APDF obtained the lowest response rate of 5.5%, followed by TecnoServe (7.4%), and GRATIS/ITTU (8%) where the values in parentheses represented the levels of use of the sources. This result compares favourably with similar studies undertaken in the country (Buame, 1996; Pentax Management Consultant Services) and other studies undertaken in the UK (Berry et al. 2006; Ramsedn and Bennett, 2005).

An analysis of the take up of each source of advice that is, whether businesses used single or multiple source(s) of advice revealed that friends and relatives, customers, and suppliers were the most important sole source users of advice. The public and the private support agencies were not used as sole sources of advice by the small businesses. There was no significant change with regard to the users of two to five sources of external advice. However, with regard to the users of six or more sources it was found that these types of user of external advice were the main users of public and also private sector sources. The conclusion drawn from this result is that the public and the private support agencies which were set up to provide advisory services to small businesses appeared not to be patronised in many cases by the sole source users of external advice. This result confirmed Buame's (1996) observation that interpersonal sources play an important role in the provision of advice and information to small businesses in Ghana.

The estimates of the logit model of the expectation of seeking business advice by supplier source revealed that the size, exporter, innovator and the businesses located in the conurbation areas were positive and significantly associated with the

use of professional specialist (accountants, solicitors, and banks). Furthermore, the size of the business was positive and significantly associated with the use of suppliers and trade and professional associations. Exporting businesses were also positive and significantly associated with the use of Chamber of Commerce and trade and professional associations while innovating businesses exhibited positive and significant association with the use of GRATIS/ITTU and University/Polytechnic. Interestingly, businesses located in the conurbation were negatively and significantly associated with the use of friends/relatives and NBSSI but positively associated with the business associates, suppliers, and Chamber of Commerce.

On the assessment of the impact of the use of external advice on achieving business objectives, the survey results revealed that sources which received the highest levels of use (especially customers, accountants, and suppliers) also made the highest impact while the sources which obtained the lowest response rates (such as APDF, Chamber of Commerce, and GRATIS/ITTU) made the least impact. The lesson drawn from this finding is that the low use of public and private support agencies can be attributed to the low levels of impact obtained from the use of those sources.

With regard to the multiple regression models on the impact assessment, the result was not different from that of the bivariate findings which could not be presented due to lack of space. The survey results revealed that the external sources of advice which were highly associated with the characteristics of the business and the owner-managers in terms of the impact assessment were the use of the university and polytechnic followed by the NBSSI and customers. On the other hand, innovating businesses and the owner-managers with A. level or higher qualifications revealed no significant association in terms of the impact of the advice used.

Furthermore, the business and owner-manager characteristics with the highest influence in terms of the impact assessment was the age of the owner-managers which revealed a negative correlation with the five sources of advice while size and the growth rates of the businesses were positively correlated with about three different sources of advice. The conclusion that can be drawn here in terms of the impact assessment is that the characteristics of the businesses and owner-managers appear not to exert significant influence on the use of external advice.

Chapter 8

Use and Satisfaction of NBSSI and Empretec Business Support Schemes

8.1 Introduction

In the previous two chapters, 6 and 7, the study has focused on the problems that affected small businesses in achieving their business objectives and the use of external business advice. This chapter builds upon the previous chapters by evaluating in greater detail two business support agencies, NBSSI and Empretec, to ascertain their levels of use, satisfaction, and also the reasons for the low levels of use of these organisations. The main reasons for focusing on these organisations were that NBSSI is the main government body set up to promote the development of small businesses in the country whilst Empretec had been acclaimed to be the most successful private support organisation in the country (Batra and Mahmood, 2003; Gibson, 1999).

As pointed out in the literature review in Chapter 3, there has been a lack of scientific and independent evaluations of many public external support organisations in many countries (Curran and Storey, 2002). Many academic commentators have therefore called for researchers to be involved in evaluating public support initiatives (Storey, 2000, Wren and Storey, 2002; Lambretch and Pirnay, 2005). Evidence from the extensive literature review and the findings from the previous chapter also confirmed that most public support organisations performed poorly in comparison to the private sector sources of external advice. Batra and Mahmood (2003: 19) observed that, '*The record of public support to private firms in developing countries has been mixed with many projects demonstrating poor returns. The challenge is to design programmes in a manner such that there is adequate number of successful*

ventures, relative the unsuccessful ones, to justify the resources expended in these programmes'. Given the huge amount of resources that many governments have invested in public support agencies in many countries and the self-glorification about the impact and their effectiveness by the administrators of service providers, it is imperative for the academic community to be involved in evaluating such projects (Storey, 2000, 2004; Henry et al., 2004). In recent years there have been a number of studies undertaken in this area in many western countries (Curran and Storey, 2002), however, there appears to be a lack of academic debate and analysis in many developing countries (Henry et al., 2004; Brautigam et al., 2002). Nieman (2001) observed in South Africa that many of the support agencies operating in the country seemed to be providing training interventions but the success of their programmes was yet to be determined through research. It is an attempt to address this academic vacuum that this chapter has focused on evaluating the use and impact of the services provided by NBSSI and Empretec.

This chapter examines the external support services provided by NBSSI and Empretec in terms of the levels of use, the levels of satisfaction obtained from the use of the services, and whether the characteristics of the businesses and the owner-managers influenced the use of these services and the reasons why some businesses did not use the services. The services are classified under two main groups of business assistance provided to small business, financial and non-financial as identified by Dogel (2001) and Dawson (1997). Financial assistance refers to the provision of loans and other credit services including credit facilitation. According to Dogel (2001: 104) owner-managers need finance for three main reasons: to diversify or spread the start-up risk, to accumulate start-up capital, and finance growth and expansion. However, evidence from the literature in many developing

countries has confirmed that credit on its own would not lead to improved performance of small businesses since many of them lacked basic managerial and technical skills (Dawson, 1997; Rogerson, 2001). In Ghana, a number of studies have confirmed that the manufacturing companies are not competitive on the international market due to low levels of managerial and technical skills (Lall, 1995; Soderbom and Teal, 2002; Frazer, 2005). As noted by Dogel (2001) owner-managers would need support to undertake market research, prepare business plans, improve productivity, undertake innovation activities, and operate on the international market, hence, the need for non-financial services.

The analysis in this chapter is exploratory, and a companion to chapter 7. As such there are no explicit hypotheses which are presented; instead the chapter seeks to better understand the services of NBSSI and Empretec which were used, the levels of satisfaction of the users of specific services, and to gain an insight into the reasons why a substantial proportion, 85.5%, of the firms did not use either of these support service providers.

The chapter is organised as follows. The first section evaluates the services provided by NBSSI in terms of the levels of use, the number of fields of advice for NBSSI users, an assessment of the level of satisfaction obtained by the use of NBSSI services, and finally, an examination of the influence of the characteristics of the businesses and the owner-managers on the use of NBSSI services. Section two focuses on Empretec services by examining the levels of use and satisfaction. The third section examines the reasons behind the non-use of the services provided by NBSSI and Empretec. Lastly, a conclusion completes the chapter.

8.2 The use and assessment of the level of satisfaction of NBSSI services

The NBSSI is the main government body set up to promote the development of small businesses in Ghana. NBSSI operations cover all the 10 regional capitals and 79 district capitals in Ghana. Before the Business Advisory Centre (BAC) was set up in 1992, the board played an intermediary role by assisting the Ministry of Trade and Industry to formulate, develop, and implement the national programme on small business growth. The BAC activities focused on the provision of both financial and non-financial services to small businesses in which this section has set out to evaluate. Specifically, the services include the provision of advisory and training and finance in the following areas: entrepreneurship awareness, general management, business plan preparation, book-keeping and costing, workshop/seminar, innovation and technology, production/operations, general business information, loans, and credit facilitation. The results in the previous chapter indicated that 14.3% of 500 owner-managers who responded to the survey questionnaire used NBSSI. Notwithstanding the above finding, an interview with the Head of BAC at NBSSI Accar office revealed that in 2006 about 36,411 individuals and businesses visited their offices throughout the country for advice. However, information on individuals and businesses that the BAC offices actually supported could not be provided. Owner-managers were asked to indicate from a list of services which are provided by the NBSSI those which they had and had not used. Table 8.1 provides the percentage levels of use of the various services of NBSSI by the small businesses.

As shown in Table 8.1 sales and marketing received the highest percentage of use with 65.5% respondents, followed by entrepreneurship awareness in which 62.1% of the respondents reported using it. 60.3% of the respondents reported using general management which occupied the third position. The services that received

the lowest usage rate were the innovation and technology (31%), followed by credit facilitation (32.8%), and provision of loans (39.7%). It is interesting to note that inadequate demand was not reported as a major problem hindering the businesses in achieving their objectives as compared to financial related problems in Chapter 6. However, this result shows that the most used service was sales and marketing whilst the use of loan and credit facilitation was amongst the least used services. The possible reason for this result could be the quality of these two services. As Patton et al. (2000) and Schwartz and Bar-el (2004) pointed out, sometimes the delivery of the service could be poorly designed so that it would not meet the expectations of the owner-managers, and hence, a low level of patronage. It could, therefore, be speculated that low usage of credit facilitation and loans by small businesses could be the result of the poor quality of the services being provided since the demand for finance was already high.

Table 8.1: Use of NBSSI Services in Ghana (% of respondents reporting use, multiple responses possible).

Source	All %
Entrepreneurship awareness	62.1
General management	60.3
Sales and marketing	65.5
Business plan preparation	50.0
Book-keeping/costing	56.9
Workshop/seminar	48.3
Innovation and technology	31.0
Production/Operations	48.3
General business information	48.3
Loans	39.7
Credit facilitation	32.8
Others	10.3
N	58

For services such as book-keeping/costing and business plan preparation the levels of use were 56.9% and 50%, respectively, whilst the rest of the services were

each used by less than one half of the NBSSI users. Interestingly, general business information which appeared to be the most popular service for the Business Link in the UK, received less than a 50% use rate for NBSSI (Bennett and Robson, 2003: 62).

8.2.1 Number of fields of services for NBSSI users

The most popular service used by single field users was the general business information with a 33.3% level of use (Table 8.2). Interestingly, the most used services such as sales and marketing, general management and entrepreneurship awareness were not used by the single field users. The survey results showed that most users of NBSSI services were heavy users, employing 7 or more fields of services. More specifically, Table 8.2 shows that 51.7% of the users of NBSSI services used 7 or more fields. For the heavy users of NBSSI services, using 7 or more fields, all of the firms in this group used sales and marketing whilst entrepreneurship awareness, general management, and book-keeping/costing were all used by more than 96.3% of that group. However, these services were not used by single source NBSSI users.

Table 8.2: Number of fields of advice for NBSSI users

	1 field %	2 fields %	3-6 fields %	7 or more fields %
Entrepreneurship awareness	0	25	72.7	96.6
General management	0	12.5	72.7	96.3
Sales and marketing	0	25	81.8	100
Business plan preparation	11.1	0	36.4	88.9
Book-keeping/costing	0	25	45.5	96.3
Workshop/seminar	11.1	12.5	45.5	77.8
Innovation and technology	0	12.5	9.1	59.3
Production/Operations	11.1	25	18.2	85.2
General business information	33.3	25	45.5	66.7
Loans	11.1	25	27.3	63
Credit facilitation	11.1	0	0	66.7
Others	11.1	12.5	0	14.8
N	9	8	11	30

Furthermore, general business information appeared to be the most patronised service for single source users, but it was the least patronised by the heavy users of advice. These results compare favourably with Pentax Management Consultancy Services (2005) in Ghana and also the Bennett and Robson (2003) study of Business Link.

8.2.2 An assessment of the level of satisfaction with use of NBBSI services.

Assessing the level of satisfaction from the use of external advice or training by trainees is one of the commonest approaches in measuring the effectiveness of training programmes (Swanson and Sleezer, 1987; Storey, 2004). However, Storey (1994) indicates that such results need to be treated with caution as a high level of satisfaction does not necessary mean enhanced performance as there are many factors that influence the performance of the business.

A careful examination of the survey results with regard to the level of satisfaction obtained for the use of external advice showed that services which received the highest levels of use appeared to exhibit the highest levels of satisfaction whilst the least used services had the lowest satisfaction scores. Table 8.3 shows that credit facilitation and loans received the highest very dissatisfied scores of 36.4% and 31.6%, respectively, although the respondents who used other services not included on the list provided by NBSSI were the most dissatisfied. In terms of the highest very satisfied services, entrepreneurship awareness came first with 25%, followed by general business information which obtained 23.1%. This result confirms Patton and Marlow's (2002) observation that small businesses would seek external support only when the owner-managers were convinced that it would make a significant impact on the business performance.

Table 8.3: Assessment of the satisfaction of NBSSI users with services.

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	N
Entrepreneurship awareness	8.3	2.8	63.9	25.0	36
General management	3.0	3.0	72.7	21.2	33
Sales and marketing	5.3	2.6	71.1	21.1	38
Business plan preparation	3.6	0.0	82.1	14.3	28
Book-keeping/costing	3.1	3.1	75.0	18.8	32
Workshop/seminar	3.6	10.7	67.9	17.9	28
Innovation and technology	5.6	16.7	61.1	16.7	18
Production/Operations	3.8	7.7	73.1	15.4	26
General business information	7.7	7.7	61.5	23.1	26
Loans	36.4	13.6	45.5	4.5	22
Credit facilitation	31.6	10.5	47.4	10.5	19
Others	40.0	0.0	40.0	20.0	5
All	9.3	6.1	66.6	18.0	311

Table 8.4 Clients' Satisfaction with NBSSI Services in Ghana (% of respondents reporting important or crucial impact, multiple responses allowed).

Source	All	N
Business plan preparation	96.4	28
General management	93.9	33
Book-keeping/costing	93.8	32
Sales and marketing	92.2	38
Entrepreneurship awareness	88.9	36
Production/Operations	88.5	26
Workshop/seminar	85.8	28
General business information	84.6	26
Innovation and technology	77.8	18
Others	60	5
Credit facilitation	57.9	19
Loans	50	22
All	84.6	311

In terms of overall service satisfaction levels, Table 8.4 reports the aggregate scores of respondents who reported satisfied and very satisfied scores. In general, the survey results appeared to show that NBSSI services have a very high level of satisfaction with an average satisfaction rate of 84.6%. This result should not be considered as a unique case because according to Storey (2004: 123) most training

programmes had received high levels of satisfaction from their participants. For instance, the Pentax Management Consultancy Service's (2005) study also reported high satisfaction rates of 70% and above for 'somewhat important' and 'quite important' on a 4-point scale. Bennett and Robson (2003: 63) reported an average satisfaction rate for Business Link to be 81.5%. Similar observations have also been made in studies undertaken in Japan according to Storey (2004).

The service with the highest level of satisfaction is the business plan preparation (96.4%), followed by general management and book-keeping/costing which received 93.9% and 93.8%, respectively. It is not surprising that the services with the lowest levels of satisfaction were loans and credit facilitation from other sources which obtained 50% and 57.9%, respectively. This is because the businesses which applied for credit or were facilitated for credit and were not successful, the likelihood of being dissatisfied with the service would be very high. A comment from one of the respondents supports the above result.

> *'I believe that the use of private and public sources of advice by small businesses has not been helpful enough. For instance, in my case when I visited the NBSSI (BAC) sometime ago for assistance, though they advised me to set up [a] spare parts store to [be] attached to the workshop, they could not assist me financially so in effect I could not benefit from them'.*

8.2.3 Multivariate analysis of the characteristics of the business and the owner-manager and the use of NBSSI services.

Using multiple regression analysis, the influence of the characteristics of the businesses and the owner-managers on the use of NBSSI services is examined. Tables 8.5 and 8.6 present the results of the estimates of the logic model which

appeared to show that the characteristics of the businesses and the owner-managers were less likely to have influenced the use of NBSSI services. Notwithstanding this general observation, there were isolated cases of significant relationships among the variables. The most interesting result from the model was the negative and statistically significant association between the businesses which provided training and the use of NBSSI services. This finding confirms the earlier observation made in the previous chapter that many businesses which responded to have provided training were indeed not providing management training or formal training to their workforce but rather apprenticeship training. Curran et al. (1997: 95) found in the UK that internal training constitutes a major source of workforce development for most small businesses and for many of them it is their only source of training. The main reason according to Curran et al. (1997) was that internal training meets a number of key training requirements for many owner-managers.

Furthermore, the models also revealed a positive and significant association between the businesses which were involved in the innovative activities and the use of services such as Workshop/seminar and innovation and technology training programmes. Although the causality of this relationship was not established in this study, this result indeed established a link between these variables. It could therefore be suggested that small businesses should be encouraged to participate in these training programmes in order to enhance their innovative activities because as in the words of Freeman and Soete (1997: 266) 'not to innovate is to die'. The regression results also provided evidence of statistically significant associations between businesses involved in R&D activities and the use of general management, book-keeping/costing and general business information. This finding further consolidates the observation made in the previous chapter that businesses involved in the R&D

Table 8.5: Estimates of a logit model of the expectation of seeking external business advice, by service provided by NBSSI in Ghana

	Entrepren-eurship awareness	General management	Sales and marketing	Business plan preparation	Book-keeping/ costing
Growth	**0.055** [c] **(0.029)**	0.024 (0.028)	**0.056** [c] **(0.030)**	-0.004 (0.025)	0.009 (0.029)
Manufacturing	0.331 (1.433)	-0.573 (1.463)	-0.039 (1.339)	-1.761 (1.493)	-1.394 (1.505)
Services	-1.574 (1.654)	-2.970 (1.904)	-1.283 (1.445)	-0.869 (1.731)	**-2.978** [c] **(1.781)**
Size (Log)	2.043 (1.345)	**2.813** [c] **(1.500)**	1.544 (1.217)	**3.919** [a] **(1.490)**	**2.683** [c] **(1.490)**
Exporter	-0.427 (0.955)	-0.841 (0.911)	-0.438 (0.877)	1.099 (0.945)	-0.893 (0.968)
Innovator	**2.443** [c] **(1.341)**	0.789 (1.137)	**2.050** [c] **(1.170)**	0.452 (1.101)	-0.207 (1.153)
R&D	**2.454** [c] **(1.341)**	**3.045** [b] **(1.492)**	2.076 (1.296)	-0.224 (0.949)	**2.623** [b] **(1.273)**
Training	**-3.565** [a] **(1.324)**	**-3.524** [a] **(1.324)**	**-3.096** [b] **(1.220)**	**-2.406** [b] **(1.122)**	**-2.565** [b] **(1.168)**
Family Business	0.519 (1.367)	1.258 (1.476)	-0.891 (1.345)	**2.290** [c] **(1.387)**	1.339 (1.413)
Gender	**4.054** [b] **(2.036)**	**4.326** [c] **(2.377)**	**3.565** [c] **(2.016)**	3.365 (2.232)	-0.453 (2.125)
Age Owner-manager	2.244 (3.801)	-1.815 (4.208)	4.736 (3.769)	-2.905 (4.597)	-1.743 (3.949)
Postgrad/Prof/ Degree/ 'A'Level	-1.462 (1.210)	1.055 (1.138)	0.104 (1.138)	1.402 (1.098)	0.002 (1.118)
Technical/ Vocational/ Apprenticeship	-1.484 (1.503)	0.183 (1.240)	-0.025 (1.374)	-1.512 (1.432)	-1.294 (1.286)
Secondary School Cert	**-2.653** [c] **(1.553)**	-2.698 (1.914)	-1.170 (1.449)	0.508 (1.384)	-1.125 (1.511)
Conurbation	-1.246 (1.024)	-0.826 (0.994)	-0.800 (0.908)	**-2.778** [b] **(1.232)**	**-2.557** [b] **(1.128)**
Large Town	1.603 (1.412)	-0.360 (1.174)	1.154 (1.205)	**-2.807** [b] **(1.393)**	-1.723 (1.165)
Constant	-8.161 (7.278)	-1.815 (8.647)	-10.943 (7.476)	-0.375 (8.798)	4.916 (7.613)
% correctly classified	75.9	81.5	81.5	87.0	81.5
-2 Log likelihood	42.336	43.848	47.463	41.798	44.464
N	54	54	54	54	54

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

Table 8.6: Estimates of a logit model of the expectation of seeking external business advice, by service provided by NBSSI in Ghana

	Workshop/ seminar	Innovation and technology	Production/ Operations	General business information	Loans	Credit facilitation
Growth	0.010 (0.020)	0.035 (0.025)	0.005 (0.022)	**0.039 [c] (0.022)**	0.008 (0.025)	-0.006 (0.026)
Manufacturing	0.708 (1.146)	-1.362 (1.583)	0.267 (1.323)	1.023 (1.297)	2.302 (1.589)	0.039 (1.301)
Services	-0.035 (1.299)	-2.486 (1.767)	-1.197 (1.416)	0.750 (1.375)	1.861 (1.492)	0.965 (1.450)
Size (Log)	**2.113 c (1.132)**	1.502 (1.510)	**2.280 [c] (1.271)**	1.318 (1.131)	1.846 (1.745)	1.147 (1.519)
Exporter	0.100 (0.734)	**2.436 [b] (1.165)**	0.954 (0.812)	-1.147 (0.798)	0.163 (1.080)	-0.795 (0.966)
Innovator	**2.476 [b] (1.180)**	**3.519 [b] (1.703)**	0.397 (1.061)	0.917 (0.993)	-1.966 (1.237)	0.406 (1.064)
R&D	0.381 (0.839)	1.421 (1.048)	0.977 (0.905)	**2.652 [b] (1.150)**	-0.099 (0.925)	-0.715 (0.993)
Training	**-1.719 [c] (0.956)**	**-2.982 [b] (1.344)**	-1.095 (0.977)	-0.615 (0.993)	-1.583 (1.094)	**-1.655 [c] (0.980)**
Family Business	0.889 (1.001)	1.427 (1.307)	0.188 (1.108)	-1.998 (1.295)	1.331 (1.198)	1.688 (1.159)
Gender	2.365 (1.525)	3.361 (2.313)	1.796 (1.692)	2.256 (1.694)	0.788 (1.864)	0.770 (1.876)
Age Owner-manager	2.987 (3.291)	-1.793 4.426)	0.917 (3.452)	5.969 (3.665)	6.349 (4.526)	1.713 (3.866)
Postgrad/Prof/ Degree/ 'A' Level	-0.124 (0.942)	1.515 (1.257)	-0.618 (0.992)	0.812 (1.112)	-0.584 (1.049)	-0.478 (1.032)
Technical/ Vocational/ Apprenticeship	-0.363 (1.107)	-0.774 (1.754)	-1.081 (1.251)	0.989 (1.254)	-0.025 (1.262)	-1.057 (1.280)
Secondary School Cert	-0.025 (1.243)	2.068 (1.435)	-0.401 (1.277)	-1.470 (1.416)	-2.305 (2.411)	-2.135 (2.088)
Conurbation	-0.757 (0.820)	**-2.297 [c] (1.242)**	**-2.290 [b] (0.914)**	-0.241 (0.890)	0.668 (0.920)	-0.607 (0.903)
Large Town	0.052 (0.981)	-1.383 (1.529)	-2.105 (1.086)	-1.561 (1.156)	-1.029 (1.199)	-1.971 (1.318)
% correctly classified	75.9	85.2	79.6	79.6	79.6	81.5
-2 Log likelihood	56.981	38.018	50.544	49.988	45.076	44.950
N	54	54	54	54	54	54

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

activities were more likely to seek external advice because of the uncertainty and the high risk involved in undertaking R&D activities. Finally, the model also demonstrated a negative statistically significant association between the small businesses located in the conurbations and the use of NBSSI services - particularly, business plan preparation, book-keeping and production/operations. This result also underpinned the earlier finding that businesses located in the conurbation areas were less likely to use NBSSI services than those located in other areas. It could be speculated that businesses located in the conurbation areas had more access to private sector training programmes where the content appeared to be of higher quality than those provided by the government support agencies (Suzuki, 2002).

8.3 The use and assessment of the level of satisfaction of Empretec services

The results in the previous chapter indicated that 8.2% of the owner-managers used Empretec. This section focuses on the levels of use and satisfaction obtained from Empretec services. Due to the limited number of observations the number of fields of services used by Empretec users and the influence of the characteristics of the businesses and the owner-managers on the use of the Empretec services could not be examined. Table 8.7 provides a summary of the percentage of the respondents reporting use of Empretec services.

62.5% of Empretec users used general management and this was the most used service for Empretec as shown in Table 8.7. Interestingly, general management services provided by NBSSI were used by more than three quarters of the respondents. For Empretec sales and marketing and business counselling were the joint second most used services with 45.8%. At the other end of the table, other Empretec services such as legal related advice appeared to be the least used,

followed by foreign linkages and the export development (12.5%) and innovation and technology (16.7%). Intuitively the low rate of use of export information could be explained by the small number of businesses being involved in exporting activities. However, the poor performance of innovative and technology services appeared to repeat a similar trend with regard to the use rate for NBSSI. There could be various reasons for this result: the first could probably be the poor nature of the services provided by these agencies which resulted in a low usage (Patton et al. 2000). Another possible reason appeared to be the low demand for the innovation and technology training programmes offered by external support agencies in many developing countries (See Sarder, 1995; Verspreet and Berlage, 1999).

Table 8.7: Use of Empretec Services in Ghana (% of respondents reporting use, multiple responses possible)

Source	All %
General management	62.5
Sales and marketing	45.8
Business counselling	45.8
Client accounting/book-keeping	41.7
General business information	41.7
Business plan preparation	37.5
Business health checks	29.2
Productivity improvement	29.2
Credit facilitation/Loan	20.8
Innovation and technology	16.7
Foreign linkages/export dev.	12.5
Others	4.2
N	24

8.3.1 An assessment of the level of satisfaction from the use of Empretec services

The level of satisfaction derived from the use of Empretec services appeared to be very high according to the survey results with six services receiving zero rates of very dissatisfied and dissatisfied responses as shown in Table 8.8. The service with the highest very satisfied respondents was the credit facilitation and loans although the same service also had 25% of the respondents who were very dissatisfied. Other services such as business health checks, general management, sales and marketing and business plan preparation also recorded a very high satisfaction level. The service with the lowest satisfaction level was the foreign linkages/export development which received 33.3% of respondents reporting very dissatisfied. However, this same service had 66.7% of the respondents who were satisfied with the service. It is very important to note that due the low number of observations the interpretation of these results needs to be done with care.

Table 8.8: Assessment of the satisfaction of Empretec users with services.

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	N
Business health checks	0	0	71.4	28.6	7
General management	0	0	61.5	38.5	13
Sales and marketing	0	0	81.5	18.2	11
Business plan preparation	0	0	75.0	25.0	8
Client accounting/book-keeping	0	0	85.7	14.3	7
Business counselling	0	0	70.0	30.0	10
Innovation and technology	0	25.0	75.0	0	4
Productivity improvement	0	0	85.7	14.3	7
General business information	10.0	10.0	70.0	10.0	10
Foreign linkages/export dev.	33.3	0	66.7	0	3
Credit facilitation/Loan	25.0	0	25.0	50.0	4
Other (Please specify).	NA	NA	NA	NA	0
All	3.6	2.4	71.4	22.6	84

In general the level of satisfaction reported by the users of Empretec services appeared to be higher than that of the NBSSI users. For instance, the average

satisfaction rate for all services used by NBSSI users was 84.6% whilst for Empretec it was 94%. For Empretec, there were 6 different services which the respondents reported 100% satisfaction level. This result appeared to support Suzuki's (2002) observation in Africa that the quality and the delivery of the private sector support services were more likely to be better than the public sector services, hence, higher levels of satisfaction for Empretec services. Batra and Mahmood (2003) also made similar claims. However, it is important to note that in the assessment of the impact of the use of external advice in the previous chapter, NBSSI received a greater use than that recorded for Empretec.

In summary, the above sections have demonstrated that in spite of the high level of satisfaction reported by the respondents the levels of use of both public and private support agencies appeared to be low. The following section examines the reasons for the non-use of the private and public support agencies.

8.4 Reasons for the non-use of external support services

Evidence from the literature reviewed and the empirical results from the previous chapter shows that the use of external advice can improve the performance of small businesses. However, results from most studies have confirmed that small businesses were less likely (than larger sized firms) to use external advice or provide training to their workforce (Storey and Westhead, 1997; Curran and Blackburn, 2000; Henderson et al, 2000; Bennett and Robson, 2003; Kiggundu, 2002; Mole, 2002b; Jones, 2004; Curran and Storey, 2002; Storey, 2004; and Berry et al., 2006). Various reasons have been given for the low take-up of external support services by small businesses by different studies although Gorman et al. (1997: 66) noted that the results had been consistent across diverse range of small businesses. Storey and

Westhead (1997: 62) gave two main reasons for the low take-up of training by small businesses. The first is the 'ignorance explanation' where small businesses were assumed to lack the knowledge of potential benefit that could be derived from training while second explanation assumed that owner-managers make informed judgement not to undertake training due to the cost and the potential benefit from training. Curran and Blackburn (2000: 182) enumerated a number of reasons that could lead to low market penetration of external support services to small businesses. These included poor marketing of support programmes which could affect the level of awareness, high cost of service, poor delivery of service which could affect the perception about the benefit of the service to small businesses, lack of trust or low confidence in the supplier, and finally, the services on offer could not meet the needs of the users.

Henderson et al. (2000) found the main reasons to be lack of time and the financial cost of the activity while Schwartz and Bar-el (2004) found the influence of distance as the most important reason for the low take-up of small businesses in the remote areas of Brazil. Other studies such as Kirby (1990), Mole (2002b), Storey (2004), Curran and Storey (2002), Jones (2004) also made similar observation. However, it is also important to note that Curran and Blackburn (2000) have disputed some of these findings and suggested that the low take-up of external advice and management training could be the result of 'psychological traits' of the owner-managers who always have strong commitments to maintain their autonomy and independent.

Surprisingly, the majority of the studies reviewed above were undertaken in developed countries and in many African countries there are fewer studies undertaken in this area (Verspreet and Berlage, 1999; Buame, 1996). Buame (1996)

noted in Ghana that unnecessary government interference makes government support agencies unattractive and unreliable to many small businesses. Furthermore, due to superstition, some owner-managers are likely to consult their 'ancestors' or 'gods of the land' or 'the Sooth Sayer' when there is a major problem rather than contacting a consultant or professional business advisors (Buame, 1996: 56; Takyi-Assedu, 1993; Kiggundu, 2002).

This section attempts to examine the reasons for the low take-up of the external support agencies in Ghana with particular reference to NBSSI and the Empretec. First the section will examine the reasons for the non-use of external support agencies, then the influence of the characteristics of the businesses and the owner-managers and the reason for the non-use of the external support services, and finally, the multivariate test results of the expectation of not wanting business advice from NBSSI.

8.4.1 Reasons for non-use of NBSSI and Empretec in Ghana.

Based on the literature review a list of six reasons for the non-use of external support was provided to the owner-managers to indicate why they did not use the services of external support agencies. Respondents could also indicate other reasons not provided on the list. Table 8.9 provides a summary of the respondents' reasons for non-use of NBSSI, Empretec and other support agencies and this was based on 253 usable responses. For all the reasons provided, being unaware about the existence of external support was the most mentioned factor with 38.7%. It is not surprising that lack of awareness about the existence of the support services came first since many studies undertaken in other countries have reported similar results (Mole, 2002; Kiggundu, 2002; Nieman, 2001; Schwartz and Bar-el, 2004).

Table 8.9: Explaining the non-use of NBSSI and Empretec

	All	Did not use NBSSI or Empretec	Used NBSSI but not Empretec	Used Empretec but not NBSSI
External advice not needed	24.1	23.7	23.1	50.0
High cost of service fee	26.5	23.3	76.9	50.0
Support not relevant to our needs	20.2	19.1	46.2	0
Unaware about the existence of their external support services	38.7	39.0	46.2	0
Support services not located in our area of operation	26.5	24.2	69.2	25.0
Time constraint – too busy to seek external support	20.9	20.3	23.1	50.0
Others	13.5	13.6	15.4	0
N	253	236	13	4

However, there are a number of studies that have demonstrated that owner-managers were indeed aware of the existence of external support services and could therefore not be a major reason that prevents them from using external support services, particularly, for Business Link and TEC in the UK (Curran and Blackburn, 2000; Bennett and Robson, 2003; Berry et al., 2006). In the context of Ghana, there was enough evidence to argue that indeed a lack of awareness could be a major reason for the low usage of NBSSI and Empretec as this was a common theme which emerged from the various interviews with owner-managers and the officials from the service providers.

> *'There is lack of public information about their existence and what they can provide for the businesses. They should have visited our premises to educate us about their capabilities and where they can be located'.*

> *'Sometimes we don't have knowledge of their existence or even if we know we still don't know what services they provide'.*

This is what an official of a service provider had to say with regard to lack of awareness.

'Lack of information about the services that we offer could be a reason for the low patronage of our services and sensitisation through churches and radios could increase the level of awareness'.

The high cost of service fees appeared to be one of the explanatory factors for the difference in use levels between NBSSI and Empretec as Table 8.9 shows that about 76.9% of the respondents who reported high cost fees used NBSSI but not Empretec while 50% used Empretec but not NBSSI. Furthermore, Table 8.9 also shows that the high cost of service fees and support services not located in area of operations of small businesses were the second most important reasons for the low take-up of external support services with 26.5% response rate. Indeed a myriad of studies have found high cost of service fees to be a major factor that prevents many small businesses from using external advice (Storey, 2004; Jones, 2004; Henderson et al., 2000; Kirby, 1990). The Pentax Management Consultancy Service (2005) study reported a high cost of service fee as the most mentioned reason for not using external advice.

Storey (2004) argued that small businesses were less likely to invest in management development as a result of the high cost, relative to the benefits. Henderson et al. (2000) also observed that TEC initiatives to provide management training to small businesses in North Yorkshire achieved little success because small businesses had not been able to contribute financially to help the cost of implementing the various programmes. An interview with some of the owner-managers appeared to confirm the above results.

'I can't afford any of the services but I think I have enough experience to work without their support'.

'I do not attend their training programmes due to high cost of accessing external training for my workforce'.

An official of one of the service providers had this to say:

'If training programme is subsidised and the cost reduced then many of them will come but if it is full cost recovery then they don't come'.

Notwithstanding the above finding, Curran and Blackburn (2000) argued that because some government support initiatives are subsidised or sometimes free, the cost could not be significant factor to explain the low level of use of those services. Furthermore, Schwartz and Bar-el (2004) demonstrated that the location of the business has a significant influence on the use of external advice especially businesses located in the remote areas. In the Ghanaian context, there was evidence that small businesses located in the small towns lacked access to external support services. 26.5% of the respondents indicated that support services were not located in their areas of operation.

Table 8.9 also revealed that 24.1% of the respondents reported external advice not needed while 20.2% reported support not relevant to our needs. Although time constraints and other reasons not provided on the list – such as political interference, and superstition – were the least mentioned reasons, the factors were significant, particularly, time constraints which was reported by 20.9% of the respondents. For support services not needed or not relevant to our needs, there could be various reasons behind these responses. For instance, Storey and Westhead (1997) noted that small businesses were more likely not to use external support services as result of the

ignorant about the benefits from such programmes. An interview with some of the respondents appeared to support this view.

'If my management aspect is not good, I wouldn't have been able to build the most popular restaurant in this area'.

There was also evidence of lack of appreciation about the value of support services by some owner-managers as revealed by one service provider.

'There was lack of appreciation of the value of the professional services on the part of small businesses. They don't see training as an important component of their businesses'.

One owner-manager also had this to say: *'Although they do provide the needed advice, they do very little to support or lift us up from our problems'.*

The above statements clearly demonstrated owner-managers lacked of understanding of the training needs or the benefits from training although Sexton et al. (1997: 6) noted that small businesses have definite knowledge about what they want to learn. It is important to note that many owner-managers operating in developing countries have little knowledge of their training needs as observed by Schwartz and Bar-el (2004) and Trulsson (1999). Some service providers have attributed the low level of education of some owner-manager as one of the main reasons for the low level of understanding of the benefits of the use of external advice, a point which was confirmed by Storey (2004). One of the interviewees had the following to say.

'Most owner-managers have low educational qualification and that served as a barrier to accessing the service'.

Having analysed the reasons for non-use of NBSSI and Empretec and other support agencies in Table 8.9, there were other views expressed by some of the

respondents which appeared to enhance the understanding of the reasons for the low use of external support agencies by small businesses. For instance, previous unpleasant experience with external service provider could influence the use of external advice in future as revealed by one of the respondents.

> '*Previous engagement which didn't help my business has given me the notion that even if I visit them they would have nothing better to offer*'.

Furthermore, political interference in the activities of the public support agencies could also influence the level of use of external support services as pointed out by an official from one service provider.

> '*Sometimes the politicians use political platforms to announce government initiatives for small businesses and this make some of the owner-managers reluctant to contact us for support*'.

Finally, the fear of losing trained staff to other businesses was a common theme which also emerged during an interview with some of the respondents. A comment by one owner-manager confirmed the above statement.

> *'Formally I used to send my employees to [the] Canadian Technical Institute at Osu and I paid them training fees and allowances. However, after training, they demand higher wages and when I am not able to meet their demand, they leave for other companies where the salaries are attractive. So in the end I become the loser'.*

8.4.2 Bivariate analysis of the reason explaining non-use of NBSSI and Empretec and the characteristics of the business and the owner-manager.

Given the reasons for the non-use of external support agencies in the previous section of the chapter, this section attempts to examine the influence of the characteristics of the businesses and the owner-managers against the reasons for non-use of the external advice. This section employed the same statistical model used in the similar analysis in the previous chapters. Business variables examined included the sector, growth, size, exporter, age, innovator (novel or incremental), R&D, training, family business and location. The owner-manager characteristics examined were gender, age, and education.

Various studies have confirmed that the internal characteristics of the businesses and the aspirations of the owner-manager indeed have influenced the level of training and development in organisations (Kailer, 1990; Gorman et al., 1997; Carrier, 1999; Bennett and Robson, 2000; Schwartz and Bar-el, 2004). Kailer (1990) for instance, observed that owner-managers' decision to undertake training is influenced by a number of factors which have included the educational background of the owner-manager and the employees, the vision of the owner-manager and the innovativeness of the business. Tables 8.10 to 8.14 summarise the bivariate test results of the characteristics of the business and the owner-manager and the reason for the non-use of external advice.

For business characteristics a careful examination of the tables reveal that most of the variables show a weak or no statistical association with the reasons for the non-use of the support agencies. However, there are significant interesting results which would require further discussions. For instance, the sector of the business show a statistically significant association at the 5% level with the reasons for the

non-use of support agencies such as external advice not needed, high cost of service fee, support not relevant to our needs, and unaware about the existence of the support services.

Table 8.10 shows that a lack of awareness about the existence of support services received the highest response rate with the businesses in manufacturing sector reporting the highest rate of 46.0%, followed by businesses in the agricultural sector with 43.1%, whilst businesses in the service sector reported the lowest rate of 30.6%. For businesses that reported external advice not needed, the service sector received the highest rate of 29.6%, followed by the agricultural sector (25.5%) while the businesses in the manufacturing sector reported the lowest rate of 16.1%. With regard to the businesses which reported high cost of service fee, the manufacturing sector received the highest respondents at 31.0%, followed by the agricultural sector with 19.6% and in the service sector it was 18.4%. Intuitively, it could be speculated that businesses in the service sector appeared to have had significant information about the existence of external support services compared to the manufacturing and agriculture businesses. However, it appeared that for businesses in the service sector, the main reasons for not using external advice was not lack of awareness but rather external advice was not needed or not relevant to the needs of the businesses. For businesses in the manufacturing sector, the main reasons could probably be attributed to the lack of awareness about the services and the high cost of service fees as indicated in Table 8.10.

For the growth characteristics of the business, there were only two variables – the high cost of service fees and the time constraint, which showed statistically significant associations against the explanation for non-use of external support agencies. 33.0% of the medium growth businesses received the highest respondents,

Table 8.10: Reasons for non-use of NBSSI and Empretec services by sector and growth (% of respondents reporting non-use, multiple responses possible).

	All %	Agriculture	Manufacturing	Services	Declining	Stable	Medium Growth	Fast Growth
External advice not needed	23.7	**25.5** [b]	**16.1** [b]	**29.6** [b]	19.1	26.5	24.7	14.8
High cost of service fee	23.3	**19.6** [b]	**31.0** [b]	**18.4** [b]	**19.1** [b]	**20.4** [b]	**33.0** [b]	**11.1** [b]
Support not relevant to our needs	19.1	**9.8** [b]	**20.7** [b]	**22.4** [b]	17.0	16.3	20.6	18.5
Unaware about the existence of their external support services	39.0	**43.1** [b]	**46.0** [b]	**30.6** [b]	36.2	42.9	36.1	44.4
Support services not located in our area of operation	24.2	21.6	25.3	24.5	23.4	26.5	24.7	14.8
Time constraint – too busy to seek external support	20.3	15.7	18.4	24.5	**17.0** [b]	**20.4** [b]	**20.6** [b]	**22.2** [b]
Others	13.6	19.6	13.8	10.3	14.9	10.2	11.3	23.1
N	236	51	87	98	47	49	97	27

Table 8.11: Reasons for non-use of NBSSI and Empretec services by size, exporter, age, and innovation (% of respondents reporting non-use, multiple responses possible).

	Micro	Small	Medium	Non-Exporter	Exporter	Young	Old	Non-innovator	Innovator
External advice not needed	25.5	18.4	23.3	22.6	29.3	24.6	23.6	20.5	25.5
High cost of service fee	**25.5** [c]	**26.5** [c]	**6.7** [c]	22.6	26.8	26.2	20.0	**16.7** [c]	**26.8** [c]
Support not relevant to our needs	19.7	14.3	23.3	17.4	26.8	20.5	17.3	**10.3** [b]	**22.9** [b]
Unaware about the existence of their external support services	39.5	36.7	40.0	40.5	31.7	37.7	40.9	44.9	36.3
Support services not located in our area of operation	26.1	18.4	23.3	24.6	22.0	28.7	20.0	21.8	25.5
Time constraint – too busy to seek external support	19.7	24.5	16.7	21.5	14.6	24.6	16.4	17.9	21.7
Others	11.5	16.3	20.0	14.4	9.8	12.4	14.5	**7.7** [c]	**16.7** [c]
N	157	49	30	195	41	122	110	78	157

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

followed by 20.4% of the stable businesses while fast growth businesses received the lowest score of 11.1%. In terms of time constraint, fast growth businesses received the highest rate of 22.2% while declining businesses had the lowest response rate of 17.0% as shown in Table 8.10. This result appears to suggest that for the fast growth businesses the true cost of training was not only the market price but rather the opportunity cost of the absence of the trainee at the workplace. This finding appeared to be supported by Jones (2004: 113) who noted that '*the opportunity cost of management time may differ between small, low-growth and larger, higher growth SMEs*'. For declining businesses the result apparently suggests that time is not a major explanatory factor for non-use of external support services.

For the size of the businesses and the reasons for non-use of external support services medium-sized businesses appeared to be the least likely to report the high cost of service fees as an explanatory factor while small-sized businesses were the most likely to report high cost of service fees as a reason for non-use of external support service. It is important to note that this relationship is only weakly statistically significant at the 10% level. This result is supported by a number of studies undertaken in this area and further underpins many government policy of intervention in the supply of external support to small businesses (Frazer, 2005; Wolf, 2004; Davins and Johnson, 2003; Frazer et al. 2002; Patton et al. 2000).

With regard to the innovation factor the results from Table 8.11 appears to suggest that innovative businesses were more likely to mention support not relevant to their needs than non-innovator businesses. However, innovative businesses were the least likely to report support services not located in our area of operation as an explanation factor for the non-use of external support services. Interestingly, the finding appeared to contradict the Kailer (1990) study. Kailer (1990) observed that

small businesses attitude toward training was influenced by a number of factors which included the innovativeness of the business, a point which was supported by Hausman (2005) and Freel (2005).

Furthermore, the main explanation for non-use of external support agencies for businesses involved in R&D activities were likely to include external advice not needed where non-R&D businesses received the highest score. On the other hand, the support services not located in their area of operations, R&D businesses had the highest response rate as shown in Table 8.12. This result appears to support the earlier results in the previous chapter that businesses involved in the R&D activities were more likely to have a need for external support services than non-R&D businesses. A further analysis of the results shown in Table 8.12 revealed that small businesses which provided training to their workforce were the least to mention the high cost of service fees and support not relevant to their needs as explanatory factors for the non-use of support agencies' services compared to the businesses which did not provide training. Given the statistical significant of this relationship, the result appears to reflect the value that those owner-managers place on training although the nature of the training that they provide is in-house.

Interestingly, whether or not the businesses was or was not a family business did not influence the factors which were given as reasons for not using Empretec and NBSSI. For the location of the businesses and the reasons for non-use of external support, the results probably confirm the findings of a number of studies undertaken in developing countries that have examined this relationship (Abdullah, 1999; Schwartz and Bar-el, 2004). Table 8.13 revealed that small businesses located in small towns were the most likely to provide reasons for the non-use of support services as lack of awareness about the existence of support services and support

Table 8.12: Reasons for non-use of NBSSI and Empretec services by innovator, R&D, training, and family businesses (% of respondents reporting non-use, multiple responses possible).

	Non-innovator	Innovator (Novel)	No R&D	R&D	Non-Training	Training	Non-Family Business	Family Business
External advice not needed	24.8	16.0	**27.6** [a]	**10.0** [a]	25.0	22.7	29.6	21.2
High cost of service fee	23.8	20.0	22.2	28.0	**29.8** [b]	**18.2** [b]	22.5	23.6
Support not relevant to our needs	17.6	28.0	20.5	12.0	**26.0** [b]	**13.6** [b]	23.9	17.0
Unaware about the existence of their external support services	39.5	36.0	36.8	48.0	34.6	42.4	38.0	39.4
Support services not located in our area of operation	**26.2** [b]	**8.0** [b]	**21.6** [a]	**34.0** [a]	24.0	24.2	26.8	23.0
Time constraint – too busy to seek external support	19.5	28.0	22.2	14.0	25.0	16.7	23.9	18.8
Others	14.4	8.0	13.0	16.3	13.6	13.6	11.3	14.6
N	210	25	185	50	104	132	71	165

Table 8.13 Reasons for non-use of NBSSI and Empretec services by location (% of respondents reporting non-use, multiple responses possible).

	Conurbation	Large Town	Small Town
External advice not needed	25.0	17.0	27.3
High cost of service fee	25.0	18.9	23.6
Support not relevant to our needs	19.5	13.2	23.6
Unaware about the existence of their external support services	**31.3** [b]	**45.3** [b]	**50.9** [b]
Support services not located in our area of operation	**17.2** [a]	**11.3** [a]	**52.7** [a]
Time constraint – too busy to seek external support	21.9	17.0	20.0
Others	**17.3** [c]	**13.2** [c]	**5.5**
N	128	53	55

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

services not located in the areas of our operations when compared to the businesses located in the conurbation. This finding apparently support the earlier observation in the previous chapter that businesses located in the small towns were more likely to lack access to support services compared to those in the conurbations.

Finally, the relationship between the characteristics of the owner-managers and the reason for non-use of external support agencies revealed significant association with two main variables, that is, the age and the education of the owner-managers. For the age of the owner-managers, there was significant association with factors such as external advice not needed, support not relevant to our needs, lack of awareness about the existence of external support services and support services not located in the area of operation. Table 8.14 provides a summary of the bivariate test results of the gender and the age of the owner-manager and the reasons for non-use of external support agencies.

Interestingly, older owner-managers received the highest response rates in all the cases which suggest that the older owner-managers were the most likely not to engage the services of external support agencies such as NBSSI and Empretec. This finding also underpinned the earlier observation that older owner-managers were more likely to rely on their own experience, hence least likely to rely on external advice as supported by Kirby and King (1997) and Takyi-Asiedu (1993). However, Table 8.14 shows that the young owner-managers were the least to report non-use reasons such as external advice not needed and the lack of awareness about the existence of support services. This could also be interpreted as the young owner-managers were more likely to use external advice agencies provided they had access to the services a point which was also noted by Storey (1994).

Table 8.14 Reasons for non-use of NBSSI and Empretec services by gender and the age of the owner-manager (% of respondents reporting non-use, multiple responses possible).

	Female	Male	Young Owner-managers	Middle-aged owner-managers	Older owner-managers
External advice not needed	25.9	23.4	**19.2** [b]	**25.0** [b]	**29.0** [b]
High cost of service fee	29.6	22.5	30.8	13.8	23.2
Support not relevant to our needs	22.2	18.7	**19.2** [b]	**15.0** [b]	**24.6** [b]
Unaware about the existence of their external support services	33.3	39.7	**35.9** [b]	**36.3** [b]	**42.0** [b]
Support services not located in our area of operation	29.6	23.4	**21.8** [b]	**20.0** [b]	**30.4** [b]
Time constraint – too busy to seek external support	14.8	21.1	23.1	15.0	21.7
Others	11.5	13.9	13.0	17.5	11.6
N	27	209	78	80	69

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

Table 8.15 Reasons for non-use of NBSSI and Empretec services by education of the owner-manager (% of respondents reporting non-use, multiple responses possible).

	Postgraduate/ Professional/ Degree/ GCE 'A' Level	Technical/ Vocational/ Apprenticeship	Secondary School Certificate/ GCE 'O' Level	Junior School Certificate
External advice not needed	**32.4** [b]	**28.9** [b]	**19.0** [b]	**16.0** [b]
High cost of service fee	19.1	33.3	19.0	23.5
Support not relevant to our needs	23.5	22.2	11.9	17.3
Unaware about the existence of their external support services	**20.6** [a]	**42.2** [a]	**33.3** [a]	**55.6** [a]
Support services not located in our area of operation	19.1	28.9	23.8	25.9
Time constraint – too busy to seek external support	20.6	17.8	21.4	21.0
Others	**13.4** [c]	**13.3** [c]	**26.2** [c]	**13.6** [c]
N	68	45	42	81

For the education of the owner-manager, Table 8.14 revealed significant association with reasons for non-use of support agencies such as external advice not needed and a lack of awareness about the existence of the support services. Interestingly, owner-managers with 'A' level or higher qualifications received the highest response rate for external advice not needed while those with junior school qualification or lower reported the least. More importantly, the result suggests that lack of awareness of existence of support services could be a major reason for owner-managers with lower education qualifications for non-used of external support services as shown in Table 8.15 where 55.6% of the respondents from that category indicated that reason.

8.4.3 Multivariate analysis of the characteristics of the business and the owner-manager and the reasons for not wanting business advice from NBSSI.

Having used bivariate test results to examine the characteristics of the business and the owner-manager and the reasons for non-use of external support services in the previous section, this section takes the analysis further by analysing the results of the estimates of the logit model of the reasons for not using business advice and training from NBSSI. Table 8.16 shows the results of the estimates of a logit model which appear to suggest that the characteristics of the businesses and the owner-managers were less significant in explaining the reasons for non-use of support services provided by NBSSI. However, there were very few instances where the results revealed significant associations between the reasons for non-use against the characteristics of the businesses and the owner-managers which are discussed in the subsequent paragraphs. The findings from this analysis consolidate the earlier observation in the previous sections.

Firstly, the regression result demonstrates a significant association between the growth of the businesses and time constraint as a reason for not using NBSSI services. This finding probably suggests that fast growth businesses were more likely not to use NBSSI services because of time constraint. In order to attract fast growth businesses NBBSI could design their training programme in a way that could be easily integrated into the operating activity of small businesses in order to reduce the time lost as a result of training as suggested by Curran et al. (1997).

Furthermore, the model also revealed that businesses involved in R&D activity were the least not to use NBSSI services due to reasons such as external advice not needed. However, services not located in our area of operation could be considered as one of the main reasons for non-use of NBSSI services by businesses involved in the R&D activity. This finding underpins and also provides more explanation to the previous results obtained using bivariate test result. For businesses which provided training to their workforce, support not relevant to our needs could be the least reason for not wanting to use NBSSI services. To increase the level of service take-up by this category of businesses, NBSSI have to improve on the awareness, accessibility, and time levels of their services.

In terms of the businesses located in conurbation areas, the estimates of the logit model demonstrate that they were least likely to indicate unaware of NBSSI services and lack of accessibility as reasons for not using NBSSI services. In the UK for instance, it was found in the mid 1990 that Training and Enterprise Council (TEC) in spite of its huge budget and wide coverage, the level of use was found to be low by many studies (Ramsden et al., 2002; Bennett and Robson, 1999; Curran et al., 1997). Curran et al. (1997) noted that the main reason for the low level of use could be 'top down' generated type of support that was least in touch with the needs of

small businesses. The introduction of the Business Link which was more of a partnership between the government and the private sector (Bryson et al., 1999) resulted in an increase in the level of use significantly (Bennett and Robson, 2003; Mole, 2000)

Finally, Table 8.16 shows that the age and the education of the owner-managers were significantly associated with many of the reasons for not using NBSSI services indicated on the list. With regard to the age the result probably demonstrated that the older owner-managers were most likely not to use NBSSI services for most of the reasons indicated with exception of time constraint and high cost of service fee. Gorman et al. (1997) noted that perception of need is of vital importance in determining the education and training needs of the owner-managers. The perception of the older owner-managers that they had acquired enough experience in life and in business could therefore influence their decision to undertake training initiative or not. Jones (2004) found the experience of the owner-manager as one of the determining factors that influences owner-managers decision on training and education. This finding probably supports Jones (2004) observation and also confirmed the earlier result that the older owner-mangers were the most likely to make a statement such as:

'I have been in the business long enough to rely on my own ideas'.

The traditional belief in Africa is that old age is a sign of wisdom and that could also be a possible explanatory factor. For the education of the owner-managers, the previous section and the evidence from the literature (See, Storey and Westhead, 1997; Gorman et al. 1997; Mole, 2002) demonstrated that the level of education of the owner-managers influences the take up of external support and training. Table 8.16 revealed that owner-managers with A. level or higher

qualifications and technical or vocational qualifications were most likely to indicate that external advice was not needed but they were the least likely to state that they were unaware of services as the main reason for not using NBSSI services. Interestingly, owner-managers with secondary qualifications were the least likely to indicate external advice not needed and unaware of services as reasons for not engaging NBSSI services. It could be suggested from this finding that the awareness of NBSSI services among owner-managers with secondary school background was high but could be lower for owner-managers with basic or no educational background. NBBSI need to step up the level of awareness with owner-managers with no or low education background.

8.5 Conclusion

This chapter has examined the services provided by NBSSI and Empretec in terms of the levels of use, satisfaction and the reasons for non-use. Among the major findings in terms of the levels of use of services included the high use of services such as sales and marketing, entrepreneurship awareness, and general management for both agencies. However, services such as loans, credit facilitation, and innovation and technology were the least patronised by the small businesses. It was suggested that the low levels of use of these services could be attributed to their design and delivery methods (Patton, et al. 2000, Manu, 1999). In addition, it was noted that NBSSI services had a higher rate of use than the Empretec services and this could be due to the differences in the costs of services. In terms of the number of fields used for NBSSI services, it was found that users of NBSSI services were heavy users of external advice.

Table 8.16: Estimates of a logit model of the expectation of not wanting business advice from NBSSI, by reason provided by NBSSI in Ghana

	External advice not needed	High cost of service fee	Support not relevant to our needs	Unaware of services	services not located in their area	Time constraint
Growth	0.003 (0.009)	-0.001 (0.009)	0.004 (0.010)	-0.009 (0.008)	-0.015 (0.011)	**0.015** [a] (0.009)
Manufacturing	-0.425 (0.500)	0.518 (0.485)	0.938 (0.598)	-0.101 (0.430)	0.836 (0.559)	0.110 (0.525)
Services	0.263 (0.466)	-0.133 (0.507)	0.978 (0.596)	-0.446 (0.427)	0.890 (0.557)	0.533 (0.505)
Size (Log)	-0.153 (0.519)	-0.709 (0.541)	0.292 (0.590)	-0.039 (0.471)	-0.475 (0.613)	-0.167 (0.562)
Exporter	0.366 (0.449)	0.201 (0.465)	0.725 (0.472)	-0.282 (0.439)	-0.941 (0.600)	-0.380 (0.535)
Innovator	0.467 (0.423)	1.019 (0.444)	**0.845** [c] **(0.492)**	-0.254 (0.362)	0.660 (0.454)	0.314 (0.436)
R&D	**-1.567** [a] **(0.562)**	0.647 (0.443)	-0.705 (0.535)	0.779 (0.405)	**1.066** [b] **(0.478)**	-0.200 (0.505)
Training	-0.231 (0.380)	**-0.730** [c] **(0.389)**	**-0.884** [b] **(0.429)**	0.523 (0.351)	-0.265 (0.431)	-0.501 (0.396)
Family Business	-0.500 (0.400)	0.009 (0.407)	-0.317 (0.438)	0.264 (0.374)	-0.306 (0.447)	-0.583 (0.415)
Gender	0.155 (0.613)	0.344 (0.627)	-0.559 (0.579)	0.417 (0.555)	0.440 (0.639)	0.706 (0.694)
Age Owner-manager	**3.403** [b] **(1.693)**	-2.568 (1.662)	**3.158** [b] **(1.363)**	**0.183** [b]	**0.996** [b] **(0.430)**	-0.288 (1.654)
Postgrad/Prof/ Degree/ 'A'Level	**0.783** [b] **(0.340)**	-0.462 (0.509)	-0.039 (0.520)	**-1.504** [a] **(0.469)**	-0.832 (0.571)	-0.261 (0.511)
Technical/ Vocational/ Apprenticeship	**0.977** [b] **(0.423)**	0.311 (0.493)	-0.182 (0.579)	**-0.784** [b] **(0.339)**	-0.174 (0.512)	-0.081 (0.544)
Secondary School Cert	**-0.086** [b] **(0.036)**	-0.572 (0.567)	-0.820 (0.666)	**-0.908** [b] **(0.394)**	-0.303 (0.584)	-0.248 (0.545)
Conurbation	-0.059 (0.461)	-0.244 (0.447)	-0.066 (0.496)	**-0.764** [b] **(0.329)**	**-2.112** [a] **(0.466)**	-0.175 (0.467)
Large Town	-0.518 (0.574)	**-1.033 c** **(0.583)**	-0.583 (0.615)	-0.025 (0.481)	**-2.906** [a] **(0.670)**	-0.911 (0.606)
Constant	-6.707 (2.982)	3.081 (0.291)	**-6.851** [b] **(3.273)**	0.329 (2.520)	1.486 (3.101)	-0.852 (2.928)
-2 Log likelihood	202.177	203.869	177.381	244.063	181.928	196.950
% correctly classified	76.3	76.8	81.0	72.5	81.0	76.3
N	211	211	211	211	211	211

[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.

For the levels of satisfaction, it was found that services which received the highest use rates were the most satisfied while those with the lowest use rates were least satisfied, particularly services such as loan, credit facilitation, and innovation and technology. On the average, Empretec users were the most satisfied and this confirms Suzuki's (2002) assertion that private support agencies were more likely to provide higher quality services than the public support agencies. Furthermore, the influence of the businesses and the characteristics of the owner-managers on the use of various support services appeared to be less significant. However, there were a few cases that revealed significant associations especially businesses which were involved in R&D activities, innovation, training, and those located in the conurbations.

Finally, the survey results for the reasons for non-use of NBSSI and Empretec services appeared to reflect similar findings in a diverse range of studies in other countries (Gorman et al., 1997). Among the main reasons given for non-use of services included a lack of awareness about the existence of services, the high cost of service fees, and support not relevant to their needs. The other reasons given by respondents included, government interference in the activities of public support agencies and the fear of losing trained staff to other businesses. On the influence of the characteristics of the businesses and the owner-managers on the non-use of support services, it was found that businesses located in the conurbation were the least likely to report unaware about services but most likely to indicate support services not needed, while businesses located in the small towns were more likely to indicate a lack of awareness. Older owner-managers and the owner-manager with A. levels or higher educational qualifications were most likely to indicate external advice not needed. While owner-managers with low or no formal education were the most likely to indicate a lack of awareness.

Chapter 9

Determinants of small businesses' growth

9.1 Introduction

The role of growing businesses in promoting economic development in many nations has been demonstrated in Chapter 4. A review of the theories of small business growth in the same chapter has also shown that many factors influence the growth of small businesses (Davidsson et al., 2002; Orser et al., 2000; Barkham et al., 1996; Storey, 1994). There are many theories that have attempted to explain the growth of small businesses and these have included: Gilbrat's (1931) law of proportionate effect, Penrose's (1959) resource-based view, and Jovanovic's (1982) learning theory. In recent years growth models such as Storey's (1994) three basic determinants of growth and Davidsson's (1991) motivational model have been used to explain the concept of small businesses growth. Other alternatives approaches that have been used to examine the growth of small businesses have included the barriers to growth (Storey, 1994; Barkham et al., 1996; Orser et al., 2000; Aidis, 2005), the strategy of management including the use of external business advice (Robson and Bennett, 2000; Ramsden and Bennett, 2005; Berry et al., 2006) and the business involvement in innovative activities (Audretsch, 1995; Freel and Robson, 2004; Hsueh and Tu, 2004; Hausman, 2005; Calvo, 2006).

In Chapters six, the growth of small business was examined by focusing on the barriers that limited the businesses to achieve their objectives over the last three years. Chapters Seven and Eight looked at the use and impact of external business advice in Ghana. The previous chapters, therefore, have examined the performance of small

businesses from the input perspectives. In this chapter, the determinants of small business growth are investigated from the output approach in terms of employment growth. By taking a holistic approach in examining the factors that have influenced small businesses' performance, this study unearths the key determinants of small businesses growth in Ghana. This chapter employs Storey's (1994) growth model to investigate the determinants of small businesses' growth by taking into consideration the findings from the earlier empirical chapters. According to Storey (1994) the growth of small business is determined by the appropriate mix of three basic components such as the characteristics of the owner-manager at pre-start, the business at-start and the business strategy at post-start. Furthermore, the chapter also examines the statistical association between the use of business advice and employment growth using ordinary least square (OLS) and structural modelling (SEM) techniques. The chapter is organised as follows: section two states the hypotheses to be tested and the measures of growth, followed by section three which presents the estimates of the ordinary least square (OLS) results of the determinants of small businesses growth. Section four examines the determinats of growth by introducing the use of business advice variables in the OLS model while section five uses the SEM model to examine the determinants of growth in Ghana. Section six concludes the chapter.

9.2. Hypotheses and measures of growth

Taking into consideration the information obtained from the literature review of theories of growth and the empirical studies of small businesses growth (See, Chapter 4), the findings of the survey results from Chapters Six and Seven, the following paragraphs and table provide a summary of the hypotheses to be tested on the determinants of small

businesses growth in Ghana. The variables selected for the analysis were based on the literature review of empirical studies of determinants of growth in Chapter four.

9.2.1. The characteristics of the owner-manager

Education

The importance of human capital and skills to the growth of small businesses has been demonstrated by many studies (Rauch et al., 2005; Almus, 2002; Liedholm, 2002, McPherson, 1996) although few studies have reported otherwise (Lee and Tsang, 2001; Barkham et al., 1996). In a review of seventeen studies, Storey (1994) concluded that educated owner-managers were likely to establish faster growing businesses. In Ghana, studies by Soderbom and Teal (2002) and Lall (1995) have demonstrated the importance of education to enterprise. Evidence from the previous empirical chapters have also shown that owner-managers with higher educational levels experience less managerial problems and are more likely to use external advice than those with lower educational qualifications. It is proposed that owner-managers with higher levels of education are likely to experience higher employment growth (H9a).

Gender

In the review of the literature of the relationship between the gender and small business growth, the majority of the studies reported that small businesses owned and managed by the women were more likely to grow slower than businesses owned by their male counterparts (See, Shelton, 2006; Cliff, 1998; Mead and Liedholm, 1998; McPherson, 1996). Cliff (1998: 523) noted that female owner-managers were more likely to set a maximum business size beyond which they would not prefer to expand

and would also deliberately adopt a slower a steady rate of growth than their male counterparts. Many studies, particularly in Africa have found female owned businesses to experience many more problems in the area of human and financial capital than their male counterparts (Kiggundu, 2002; McDade and Spring, 2005). However, Storey (1994) in the review of the literature on gender and business performance concluded that the gender of the owner-manager is not a major influence on the businesses' performance. Furthermore, the survey results of the barriers to small businesses growth in Chapter Six did not find any gender influence on the barriers to the businesses' growth. With regard to the use of external advice, female owner-managers were more likely to use external advice than the male owner-managers, hence, improving their managerial efficiency.

Notwithstanding the above analysis, it is proposed that growth is positively associated with male owner-managers (H9b).

Age

With regard to the age of the owner-manager and growth, many studies have concluded that younger owner-manager led businesses are more likely to experience higher growth than those led by older owner-managers (Barkham et al., 1996; Mead and Liedholm, 1998; Brown et al., 2005). However, McPherson's (1996) study in five southern African countries does not support this claim. Although Storey (1994) found that younger owner-managers businesses appeared to grow faster than the older owner-managers, he suggested that there could be the possibility of a non-linear relationship between age and growth. The survey results on the barriers to growth and the use of external advice did not find that age was an important variable. It is therefore

hypothesised that the age of the owner-manager could be positively or negatively associated with business growth (H9c).

Previous experience of the owner-manager

A number of studies have observed that the previous experience of the owner-manager (experience gained as an owner-manager or employee in similar business) has a significant influence on the growth of small businesses (McPherson, 1996; Lee and Tsang, 2001; Rauch et al., 2005). Barringer et al. (2005) noted that the previous experience of the owner-manager was one of the most consistent indicators of small businesses growth. In the review of empirical studies of the determinants of small businesses growth, it was observed that six papers out of the seven papers that had included the previous experience of the owner-managers in the models found a positive association with growth. Kiggundu (2002) in an extensive review of the literature of factors that influence small businesses success in Africa found contradictory results and proposed the concept of entrepreneurial competency as the best measure of small businesses performance. Barkahm et al. (1996) study in the UK did not find any statistical association between the prior business experience and the growth of small businesses. Notwithstanding the above findings, it is proposed that the previous experience of the owner-manager could be positively or negatively associated with employment growth (H9d).

9.2.2 The business characteristics

Size

Various empirical studies of the determinants of small businesses' growth have consistently found an inverse relationship between the size of the businesses and

employment growth (Davidsson et al., 2002; Almus, 2002; Liedholm, 2002). Following the pioneering work of Evans (1987) that disproved the Gilbrat's law of proportionate effect, there has been plenitude of studies in the subsequent years that have confirmed Evans (1987) results (See, Chapter 4 for detailed analysis). Nevertheless, there are few studies undertaken in the developing countries that have found large-sized businesses growing faster than the small-sized businesses (Frazer, 2005; Sleuwaegen and Goedhuys, 2002). On the other hand, empirical analysis of the survey results on barriers to growth provided mixed results.

This notwithstanding, there is enough empirical and theoretical evidence to support the hypothesis that small-sized businesses grow faster than the large-sized businesses (H9e).

Family businesses

In spite of their enormous contribution to income generation, job creation, and industrial development in both developed and developing countries (Ibrahim et al., 2003; Kotey, 2005; Saffu, 2004), family businesses were the least likely to adopt formalised governance structure and centralised decision making process as compared to non-family businesses according to Morris et al. (1997: 387). Furthermore, family ownership bestows obligations on the owner-manager to provide employment for family members irrespective of their knowledge, skills, and capabilities (Buame, 1996; Kiggundu, 2002). Other empirical studies on family businesses have revealed that family businesses experience more financial and managerial difficulties than non-family businesses (See, Kotey, 2005; Sharma, 2004). Family businesses also have lower survival rates than non family businesses (Ibrahim et al., 2003; Sirmon and Hitt, 2003). Given the above

analysis, non-family businesses are more likely to be positively associated with business growth (H9F).

Location

There is enough evidence from the various empirical studies reviewed in Chapter Four to suggest that the location of the business indeed influence its growth. Hoogstra and Dijk (2004) study in the Netherlands demonstrated the influence of the business location on its growth. Davidsson et al. (2002) study of small businesses growth in Sweden also revealed similar result. In Africa, there has been myriad of studies that confirmed that businesses located in the rural areas grow slower than those located in the commercial districts (Liedholm, 2002; Sleuwagen and Goedhuys, 2002; McPherson, 1996). On the other hand, Keeble (2003) found in the UK that businesses located in the periphery grew faster than those located in the industrial heartlands. This notwithstanding, it proposed that businesses located in the densely populated towns are likely to be positively associated with growth (H9g).

9.2.3 The business strategy

In a more recent study O' Regan et al. (2006: 251) noted that high performance businesses place much emphasis on strategic attributes although the impact of such attributes on growth is debateable. Research findings on the relationship between innovation and growth of small businesses have not been conclusive. According to Oyelaran-Oyeyinka et al. (1996: 1083), the difference between successful and failed businesses is the ability of the successful businesses to innovate. Audretsch (1995) noted that investment in innovation could appear to be a drain on the business limited

resources in the short run but the long-term growth and profitability would depend on investment in innovation. Freel and Robson (2004: 569) observed that 'novel product innovation activity in both manufacturing and service sectors were found to be positively associated with growth in employment'. In Africa, Oyelaran-Oyeyinka's (1996) study of industrial innovation in sub-Saharan Africa and Sverrisson's (1997) study of light engineering and metal work in Ghana demonstrate the importance of innovation to firms' growth. Therefore businesses involved in innovative activities there is compelling evidence from many empirical studies that there is a link with growth in employment (Audretsch, 1995; Almus and Nerlinger, 1999; Yang and Huang, 2005). Businesses involve in innovative activities could be positively associated with the growth of small businesses (H9h).

However, with regard to the businesses involve in exporting and R&D activities, there appears to be a lack of a convincing argument with regard to their impact on growth (See Chapter 4). Nevertheless, some studies have associated small businesses involved in exporting activities with growth (Wagner, 1995; Kitson and Wilkinson, 2003). Given the above analysis the following hypotheses are proposed:

Businesses involve in the exporting activities could be positively or negatively associated with growth in employment (H9i).

Expenditure on R&D activities could be positively or negatively associated with growth (H9j).

For the use of external advice and growth, research findings have produced contradictory results (Lambretch and Pirnay, 2005; Hjalmarsson and Johansson, 2003; Westhead and Storey, 1996). Extensive review of the literature on the subject in Chapter Three also revealed similar results. However, there are myriad of studies that have

demonstrated a significant association between the use of external business advice and small businesss growth (Berry et al., 2006; Ramsden and Bennett, 2005; Chrisman and McMullan, 2004; Wren and Storey, 2002; Robson and Bennett, 2000). Furthermore, empirical findings in Chapters Seven and Eight appeared to support the above claim although the levels of influence vary from one supplier to the other. It is proposed that the use of external advice is positively associated with small business growth (H9k).

Table 9.1: Summary of the hypotheses of the determinants of growth

The characteristics of the owner-manager	
H9a	Growth is positively associated with higher level of education.
H9b	Growth is positively associated with male.
H9c	Growth is positively or negatively associated with older entrepreneurs.
H9d	Growth is positively or negatively associated with previous experience of the owner-manager.
The business characteristics	
H9e	Growth is negatively associated with larger businesses.
H9f	Growth is negatively associated with family-ownership.
H9g	Growth is positively associated with higher levels of urban density.
The business strategy	
H9h	Innovation is positively associated with growing businesses.
H9i	Growth is positively or negatively associated with export involvement.
H9j	Growth is positively or negatively associated with expenditure formally committed to R&D.
The use of external business advice	
H9k	Growth is positively associated with the use of external business advice.

NB: In the regression models the age of the business was excluded.

It is important to note that Table 9.1 above provides a summary of the hypotheses to be examined in looking at the determinants of small businesses' growth in Ghana. The analysis of the survey results focuses on the businesses in all the three main sectors of the Ghanaian economy- agriculture, manufacturing, and service. Evidence from the literature of empirical studies on small businesses revealed that most of the studies have

been limited to the manufacturing sector (See, Teal, 1998; Soderbom and Teal, 2002; Davidsson et al., 2002; Wolf, 2004; Biesebroeck, 2005). For instance, Davidsson et al. (2002: 333) observed that 'previous research has focused primary on manufacturing firms even though manufacturing has become an ever smaller contributor to economic growth in most of these countries'. The use of business advice and the businesses involvement in innovative activities have been included in this analysis because of the recent interest by academics to examine small businesses growth in terms of their use of external advice (See, Berry et al., 2006; Ramsden and Bennett, 2005; Robson and Bennett, 2000) and involvement in innovation activities (See Mahemba and De Bruijn, 2003; Freel and Robson, 2004; Hausman, 2005; Freel, 2005).

9.2.4 Measures of growth

As indicated by Delmar et al. (2003) and stated in the previous chapter growth rates can be operationalised in many ways. For this study the growth of the businesses is measured by the changes in the number of employees from the period 2002 to 2005. The growth rates were computed based on annualised rate growth method (See, Brouwer's et al., 1993). Thus, the annual rate of employment growth (2002-2005) is estimated as follows:

GE = (FTE02/FTE05) ⅓ - 1 With: GE = annual growth rate in employment

EMP02 = employees (in full-time equivalent) in 2002 and EMP05 = employees (in full-time equivalent) in 2005

Although other measures of growth such as sales turnover and productivity could have been alternative methods, the unwillingness of the respondents to provide

information about their sales and output resulted in inadequate useable data for a meaningful statistical analysis.

In terms of innovation, this study was designed in line with the European Union Harmonised Innovation Survey (CIS) (See, Kleinknecht and Mohnen, 2002) in which respondents were asked to report whether novel or incremental innovation activity had or had not taken place during a specific period of time (2002-2005). A novel innovation is defined as one that is new to the business and also new to the industry. Incremental innovation refers to new products and services that are new to the businesses, but not new to the industry. The distinction between novel and incremental innovation is important in developing countries since resource limitations may constrain novel innovation (Adeboye, 1997; Mahemba and De Bruijn, 2003). Recent studies that have adopted this approach have included the works of Avermaete et al. (2003), and Hadjimanolis (2000).

For external advice, the suppliers are categorised into seven groups: market and supply chain, social networks (friends, family, business associates), professional specialists (banks, accountants, and solicitors), professional generalist (consultants and institute of higher education), business associations (trade associations, professional associations, and informal sector associations), government sponsored schemes (NBSSI and GRATIS), and bilateral/multilateral agencies (APDF, Empretec, Technoserve, SPEED). Table 9.2 presents summary and definitions of the variables in the growth models.

Table 9.2: The variables included in the growth models

Gender	Dummy variable; entrepreneur is male = 1, otherwise = 0
Postgrad/ Prof/ Degree/ 'A' Level	The entrepreneur has postgraduate qualifications, professional qualifications, a degree or 'A' levels which are equivalent to high school graduation in the US
Technical/ Vocational/ Apprenticeship	The entrepreneur has technical or vocational qualifications or has completed an apprenticeship
'O' Levels	The entrepreneur has 'O' levels which are awarded to 17 year old school pupils
Age Entrepreneur	Age of the entrepreneur in years
Previous Experience	Previous experience in business – experience gained as an owner-manager or employee in similar business.
Size (Log)	Number of Employees
R&D	Dummy variable; firm spends money on research and development = 1, otherwise = 0
Family Business	Dummy variable; business employs one or more people who are from the family of the entrepreneur =1, otherwise = 0
Exporter	Dummy variable; business exports goods and services = 1, otherwise = 0
Innovation	Business involvement in incremental or novel innovation
Manufacturing	Dummy variable; firm is from the manufacturing sector
Services	Dummy variable; firm is from the services sector
Agriculture	This is the excluded comparison variable
Conurbation	Conurbations are firms located in Accra (the Capital), Tema and the surrounding area
Large Town	Large towns are settlements with populations of 150,000 to 1,500,000
Small Town	Small towns are settlements with populations of less than 150,000. This is the excluded comparison variable.
The following dummy variables relating to the uses of sources of advice which were used are included in the model.	
Sources of advice	Accountants, Solicitors, Banks, Customers, Business associates, friends and relatives, suppliers, consultants, chambers of commerce, trade and professional associations, NBSSI, Empretec, Technoserve, APDF, GRATIS/ITTU, and universities/polytechnics.

NB: The age of the business is excluded from the model.

9.3. Results

This analysis is based on a survey sample of 500 small businesses interviewed by the researcher in Ghana. The data for the analysis were the results of estimates of ordinary least square (OLS) models which report the relationship between employment growth and the characteristics of the owner-manager, the business and the business strategy. Furthermore, the use of business advice is examined against growth in employment.

At this point it is important to indicate that there are limitations associated with the cross-sectional surveys such as issues of causality and multicollinearity (Freel and Robson, 2004; Davidsson, 2004; Barkham et al., 1996). Tests of collinearity of the variables in the model using SPSS software suggested low levels of collinearity. In terms of the causality of the regression results, it is important to note that this analysis does not suggest causes of growth but rather the factors which are associated with small businesses growth.

9.3.1 Determinants of growth

Table 9.3 presents the estimates of the OLS models of the association between the characteristics of the owner-manager, the business and the business strategy with growth in employment. The results indicate the factors which are associated with small businesses' growth in employment in Ghana based on the Storey (1994) growth model.

Table 9.3: Estimates of OLS models of the association between owner-managers' and businesses' characteristics with growth in employment, by sector.

	Agriculture	Manufacturing	Services
Gender	-12.749 (11.763)	-7.507 (5.334)	**-7.855** [b] **(3.570)**
Postgrad/ Prof/ Degree/ 'A'Lvl	7.765 (7.428)	0.217 (5.050)	**-7.021** [b] **(3.452)**
Technical/ Voc./ Appr.	-1.120 (7.531)	0.982 (4.774)	-1.371 (3.893)
'O' Levels	4.543 (6.998)	**14.315** [a] **(5.116)**	0.558 (4.410)
Age Entrepreneur	**-14.762** [a] **(3.524)**	**-42.879** [b] **(17.132)**	**-38.616** [a] **(11.895)**
Previous Experience	-1.096 (5.894)	-1.346 (3.673)	**-4.864** [a] **(0.816)**
Size (Log)	**6.421** [a] **(1.114)**	**29.116** [a] **(4.600)**	**29.727** [a] **(3.385)**
R&D	-5.246 (6.536)	-1.225 (4.376)	-0.160 (3.291)
Family Business	3.905 (6.979)	**7.669** [a] **(4.076)**	2.921 (2.919)
Exporter	**-7.978** [a] **(1.131)**	4.763 (4.190)	-4.687 (3.568)
Innovation	-5.077 (6.172)	-1.049 (3.899)	-0.297 (3.125)
Conurbation	3.423 (7.910)	-1.566 (4.688)	-1.469 (3.587)
Large Town	-1.131 (2.785)	-2.942 (5.710)	3.326 (4.036)
Constant	**-10.363** [a] **(1.230)**	**49.650** [a] **(10.145)**	**56.509** [a] **(20.747)**
R^2	0.311	0.304	0.371
F	**8.667**[a]	**5.667**[a]	**7.745** [a]
N	83	178	180

[a] Significant level at 1% and [b] Significant level at 5%.

9.3.2 Owner-manager characteristics

The estimates of OLS models presented in Table 9.3 revealed that for the owner-manager characteristics only the age has a significant statistical association with growth in employment, in all the three sectors of the economy. The negative association between age and growth in employment demonstrates that the growth rate in employment decreases with age implying that the younger owner-managers would experience higher growth rates in employment than the older owner-managers (See, Almus and Nerlinger, 1999; Roper, 1999; Brown et al., 2005). However, this result is not consistent with the finding obtained from the barriers to growth chapter where the age of the owner-manager was not significantly associated with the barriers limiting the business to achieve its objectives. This finding therefore supports H9c which proposed an inverse relationship between age of the owner-manager and employment growth.

For the statistical relationship between educational qualifications and the growth in employment, Table 9.3 presents an interesting result. Information about the owner-managers' qualifications were grouped under four main areas: postgraduate/ professional/ Degree or Advanced level, technical/ vocational/ apprenticeship, secondary, and the junior secondary or lower qualifications and the qualifications below the junior secondary school were the excluded comparisons group. Although there was no significant relationship between employment growth and the educational qualification variables across the three sectors of the economy, it was surprising to observe a negative and significant association between the owner-managers with 'A' level or higher qualifications with businesses in the services sector and employment growth. However, a positive relationship was found between secondary school qualifications and the businesses in the manufacturing sector.

Apparently, these results contradict many of the empirical findings of the relationship between education qualifications of the owner-manager and employment growth (Rauch et al., 2005: 692). In the review of the literature of empirical studies on small businesses growth, many studies have consistently found a positive association between education and employment growth (See McPherson, 1996; Almus, 2002; Littunen and Tohmo, 2003; Brown et al., 2005). Notwithstanding the findings of those studies, Barkham et al. (1996) found no significant association while Lee and Tsang (2001) found a negative association between them. Furthermore, the results from this study appeared to provide a partial confirmation to an earlier study undertaken in Ghana by Sowa et al. (1992) that found a significant and a positive link between the owner-managers with technical education and business performance while those with the university qualification performed poorly.

It is important to note that most of the studies that found positive associations between the education and the growth in employment were mostly focused on businesses in the manufacturing sector without taking into consideration the businesses in the other sectors of the economy (Davidsson et al., 2002). Furthermore, the various levels of qualifications have also been neglected in many studies (Barkham et al., 1996; Hall, 1995). The strength of this finding was based on the fact that all the three main sectors of the Ghanaian economy were examined and the various levels of the qualifications of the owner-managers had also been taken into consideration in this growth model. On the other hand, the finding that owner-managers with secondary or college education were likely to run faster growth businesses is supported by other studies undertaken in the UK and Africa (Barkham et al., 1996; Sims et al., 2002; McPherson, 1996; Mead and Liedholm, 1998). This finding also provides a boost to the Government of Ghana Poverty Reduction

Strategy (GPRS) as majority of the owner-managers would be found under this category.

Although, the inverse relationship between the owner-managers with Advanced level or higher qualifications and growth in employment was surprising, Lee and Tsang (2001) made a similar observation. However, their study measured growth in term of sales and profit. It is important to caution that this finding did not suggest that 'A' level or higher qualifications and also technical/vocational /apprenticeship qualification were not relevant with regard to the small businesses growth. Their impact could be indirect as demonstrated in the growth model developed in Chapter 5 (See Figure 5.1). For instance, in the business advice chapter, it was found that owner-managers with education qualifications of 'A' level or higher were more likely to use external advice than those with lower qualifications and the higher use of external advice was likely to have significantly influenced the business performance. However, based on the above analysis H9a is not supported.

With regard to the prior business experience of the owner-manager, that is, an experience as an owner-manager or an employee in similar business, the previous empirical chapters such as the barriers to growth and the use of business advice did not include the variable. However, in terms of the determinants of growth the previous experience of the owner-manager variable has been included in the model because according to Barringer et al. (2005) in their review of various empirical studies on determinants of growth noted that prior business experience of the owner-manager has been one of the consistent indicators of small businesses growth. Barringer et al's (2005) result is also supported by the following papers that reported a positive correlation between the previous experience of the owner-manager and the business growth (Rauch et al., 2005; Lee and Tsang, 2001; McPherson, 1996). An

examination of Table 9.3 shows a significant and a negative association between the previous experience of the owner-manager and employment growth in the services sector. However, there is no significant association between previous experience which could be prior self employment or sector experience and employment growth for businesses in the agriculture and the manufacturing sectors. The findings from this study appeared to support the claim that previous experience of the owner-managers with businesses in the services sector was more likely to serve as a stumbling block for business growth, hence, the negative association (Brown et al., 2005; Kiggundu, 2002). The finding from this study appeared to contradict many of the empirical studies reviewed. The finding obtained here, therefore, did not support the hypothesis H9d for businesses in the agricultural and manufacturing sector, while businesses in the services sector were supported.

The regression results suggest that compared with the female owner-managers, the male owner-managers with businesses in the service sector were more likely to experience a negative growth rate. This relationship was statistically significant at the 5% level. Furthermore, there was no correlation between the gender and growth in employment with regard to businesses in the agricultural and manufacturing sector. This result contradicts the conclusion drawn from the review of the literature that male owned businesses grow faster than the female owned businesses because female owned businesses probably experienced more problems than their male counterparts (Cliff, 1998; McDade and Spring, 2005; Kiggundu, 2002; Shelton, 2006). Nevertheless, the barriers to growth chapter did not confirm the findings from the literature review. However, one possible reason to explain the finding from this study could be the higher use of external advice by female owner-managers compared to the male owner-managers and had led to the improved performance of

female run businesses than the male businesses. The hypothesis H9b is therefore not supported.

9.3.3 The business characteristics

Davidsson et al. (2002: 332) concluded that among the determinants of business growth business age, business size, ownership form, industrial sector, and legal form were the most important factors related to growth. Included in the growth models for this analysis were the size (log) of the business, whether or not it was a family business and the location, again captured by a series of dummy variables. Table 9.3 revealed a positive association between the size of the business and the employment growth across the three sectors of the economy. Furthermore, a positive relationship was also found between family business and growth in employment in the manufacturing sector while no statistical association was found with location (both conurbation and large towns).

The size of the business provides one of the most consistent indicators of small businesses growth (Storey, 1994; Barkham et al., 1996; McPherson, 1996; Liedholm, 2002; Almus, 2002; Yasuda, 2005). The findings of those empirical studies have found an inverse relationship between the initial size of the businesses and growth, hence, supporting Jovanovics' (1982) learning theory. However, few studies have found a positive association between business size and growth which implies that larger businesses grow faster than small businesses (Roper, 1999; Biesebroeck, 2005). Interestingly, the regression results in Table 9.3 demonstrate that in the Ghanaian context medium-sized businesses were more likely to grow faster than the small and micro-sized businesses. There are many reasons that can explain the finding of these results. First, in the Ghanaian context, these results are not surprising

as various empirical studies undertaken in measuring the productivity and growth performance of businesses in the manufacturing sector appeared to support this finding (See, Teal, 1998; Biesebroeck, 2005; Frazer, 2005). The studies of Frazer (2005) and Teal (1998) show that large-sized businesses were more productive, more likely to survive and also grow more rapidly than small-sized businesses. Van Dijk (1997) also confirms the problem of low productivity and low labour returns for micro businesses in Ghana. Sleuwaegen and Goedhuys' (2002) study of business growth in sub-Saharan countries also found a positive association between business size and employment growth. Second, there was also evidence from the business advice chapter (See, Chapter 7) that confirms that the use of external advice increases with business size (See, Ramsden and Bennett, 2005; Chrisman and McMullan, 2004) then the findings from this study would not be unexpected ceteris paribus. The hypothesis H9e is therefore not supported.

Table 9.3 shows a significant and a positive association between the family businesses and employment growth in the manufacturing sector but this was not statistically significant in the agricultural and services sectors. A family business is defined as one where there is one or more relatives of the owner-manager employed in the business. In the review of empirical studies, it was found that family businesses were more likely to experience managerial and financial difficulties than non-family businesses (Ibrahim et al., 2003; Kotey, 2005; Sharma, 2004). Furthermore, in examining the survey results on barriers to business growth in Chapter 6, it was also found that family businesses were more likely to experience barriers to the attainment of businesses objectives than the non-family businesses. Given that family businesses experience many more problems than non-family businesses (Sirmon and Hitt, 2003: 341), have lower survival rates than non-family

businesses (Ibrahim et al., 2003: 474), it was expected that family businesses would grow at a slower rate than non-family businesses. However, the regression results in Table 9.3 on family businesses, particularly in the manufacturing sector reports otherwise. Interestingly, family businesses in the manufacturing sector appeared to grow faster than non-family businesses. Notwithstanding the above result, in the African context this finding should not be surprising when socio-cultural factors are taken into consideration. For instance, Buame (1996) observed in Ghana that the family links and connections served as a source of information and resource acquisition for small businesses. The hypothesis (H9f) that non-family businesses would grow faster than the family businesses was not supported.

In terms of the location and the business growth, Hoogstra and Dijk (2004: 179) concluded that 'location matters'. In most cases, small businesses located in urban areas appeared to grow faster than those located in the rural areas (Davidsson et al., 2002; McPherson, 1996; Mead and Liedholm, 1998; and Sleuwaegen and Goedhuys, 2002) although there were few studies that reported otherwise (Keeble, 2003). However, the survey findings obtained in the barriers to growth chapter provided mixed results. Although it was anticipated that businesses located in the conurbation and large towns would grow faster than those located in small towns, the estimates of OLS results shown in Table 9.3 revealed no association between the businesses in conurbation and large towns and growth in employment. Hypothesis H9g was therefore not supported.

9.3.4 The business strategy

The last major component of the determinant of small businesses growth identified by Storey (1994) was the business strategy. For the purpose of this

analysis, three strategic variables (innovation, R&D, and exporting activity) were included in the estimates of OLS models in Table 9.3.

Table 9.3 shows that there is no statistical association between growth in employment and the businesses involvement in innovation and R&D activities across the three sectors of the economy. For the businesses involved in the exporting activities, the regression result revealed a significant and a negative association with growth in employment for the businesses in the agricultural sector. There is no significant association for the businesses in the manufacturing and service sectors. Given that businesses involved in the exporting activities appeared to have performed better than non-exporting businesses, the finding from the estimates of OLS tests that businesses in the agricultural sector involved in the exporting activities were less likely to experience growth in employment belies the general believe that exporting businesses grow faster than the non exporting businesses (Wagner, 1995; Barkham et al., 1996; and Ibeh, 2003).

However, taking into consideration the many problems that the agriculture sector in many developing countries faced in terms of inputs, finance, and markets, which were confirmed by the results from the barriers to growth chapter, this finding could not be surprising. With regard to innovation and growth, recent empirical studies on the subject have found a positive association between innovation and growth in employment (Yang and Huang, 2005; Freel and Robson, 2004; Calvo, 2006) although the debate has not been conclusive (Storey, 1994). Taken together, the results in the regression models show that H9h, H9i, and H9j were not supported.

9.4. The use of external advice and small business growth

Having examined the determinants of small business growth based on the Storey (1994) growth model, this section uses the same growth model and introduces the sources of external business advice variables into the model. The objective is to identify which of the sources of advice influenced small businesses' growth in employment. The findings from Chapter 7 showed that the four most used sources of advice were customers, suppliers, friends and family, and business associates while the least used sources were the government-sponsored schemes and bilateral and multilateral agencies. In terms of the impact of the use of external advice on the business performance, the results showed that customers, accountants, suppliers and consultants made the highest impact on the businesses performance. It is important to point out that because of lack of empirical studies on the use of external advice and small businesses growth in the study area, this analysis is exploratory. Table 9.4 presents the regression results of the association between the owner-managers' and businesses' characteristics and the use of business advice in employment, by sector.

Table 9.4: Estimates of OLS Models of the Association between Owner-managers' and businesses' Characteristics and the Use of Business Advice with Growth in Employment, by sector.

	Agriculture	Manufacturing	Services
Gender	-10.885 (14.705)	-7.495 (5.912)	**-5.891** [b] **(2.677)**
Postgrad/ Prof/ Degree/ 'A'Lvl	5.856 (8.812)	1.657 (5.547)	**-7.411** [b] **(2.884)**
Technical/ Voc./ Appr.	-4.672 (8.414)	0.320 (5.306)	-2.691 (4.053)
'O' Levels	-0.347 (8.740)	**14.552** [a] **(5.410)**	-0.251 (4.516)
Age Entrepreneur	21.117 (23.444)	**-37.827** [b] **(17.932)**	**-27.098** [b] **(12.863)**
Previous Experience	0.528 (7.102)	0.082 (3.811)	**-6.554** [b] **(2.979)**
Size (Log)	**3.164** [b] **(1.509)**	**33.638** [a] **(5.224)**	**33.335** [a] **(3.819)**
R&D	-1.863	-2.822	0.394

	(8.488)	(4.652)	(3.423)
Family Business	-0.519 (8.204)	6.325 (4.299)	2.585 (3.048)
Exporter	**-12.854 [a]** **(2.024)**	2.933 (4.555)	-3.557 (3.759)
Innovation	-7.589 (8.755)	-2.697 (4.119)	0.070 (3.267)
Conurbation	1.576 (7.286)	1.657 (5.326)	-0.743 (3.695)
Large Town	-2.366 (8.808)	-0.859 (5.856)	5.621 (4.078)
Accountant	**16.092 [a]** **(3.052)**	**-8.273 [a]** **(1.833)**	-0.165 (3.449)
Solicitor	8.969 (9.767)	1.811 (5.388)	-3.424 (3.587)
Bank	-7.072 (6.764)	1.529 (4.460)	0.646 (3.575)
Customer	**13.023[a]** **(2.506)**	**9.490[a]** **(2.132)**	5.467 (4.194)
Business Associates	-6.004 (6.476)	4.816 (4.537)	-1.231 (2.973)
Friends and relatives	5.138 (6.804)	1.488 (4.213)	1.767 (3.103)
Suppliers	4.032 (6.086)	-5.764 (4.442)	-0.054 (3.161)
Consultants	-5.479 (9.835)	-6.634 (5.853)	-3.634 (4.141)
Chambers of Commerce	-4.178 (16.359)	-6.551 (7.651)	**13.442 [b]** **(5.396)**
Trade/ Prof. Associations	-4.049 (7.736)	-5.888 (4.833)	**-11.262 [a]** **(3.340)**
NBSSI	3.180 (11.003)	4.862 (6.178)	-1.701 (5.139)
Empretec	-0.690 (13.971)	6.824 (10.941)	-3.405 (6.870)
Technoserve	4.755 (8.451)	13.814 (14.483)	**-23.909 [b]** **(11.200)**
APDF	-3.069 (16.022)	11.435 (13.897)	15.540 (10.297)
GRATIS/ITTU	-4.189 (16.321)	**-16.595 [a]** **(3.543)**	-1.024 (7.374)
Universities Polytechnics	-9.415 (8.929)	4.052 (8.385)	2.146 (6.134)
Constant	**-29.487 [a]** **(4.673)**	**33.732 [a]** **(3.818)**	**32.980 [a]** **(3.087)**
R^2	0.367	0.386	0.431
F	**4.667 [a]**	**3.205 [a]**	**5.101 [a]**
N	83	178	180

The excluded comparison variables are agriculture sector, small town and Junior secondary certificate or lower.

[a] Significant at 1% level, [b] Significant at 5%.

Table 9.4 reports on estimates of OLS models of the association between the owner-managers and businesses characteristics, the business strategy, and the use of business advice with growth in employment, by sector. By comparing the results in Table 9.4 with Table 9.3 with particular reference to the statistical associations between growth and the characteristics of the owner-manager, the business and the business strategy, both sets of results are similar with the only differences occurring in the age of the owner-managers in the agricultural sector and the family businesses in the manufacturing sector. In both cases, Table 9.4 reported no significant association with growth in employment while Table 9.3 reported a significant relationship. The possible reason for the result could be the introduction of the sources of business advice variables which neutralised the impact of the age of the owner-managers and the family businesses and employment growth.

In reporting the estimates of OLS models on the use of business advice and employment growth, it is important to note that the use of external business advice does not necessary lead to increase in the employment growth as pointed out by Robson and Bennett (2000: 200). It could be possible for the use of external advice to result in employment contraction as owner-managers sought to increase sales turnover and maximised profit rather than the expansion in employment size (Robson and Bennett, 2000). One main limitation of this analysis is that growth is measured in terms of employment only although the use other measures of growth such as sales turnover and profitability could have provided a clearer picture. Table 9.4 reveals that the use of external advice appears to have little relationship with employment growth by sector as most of the sources of external advice showed no statistical association with growth in employment. However, there are eight cases that demonstrate significant statistical association with growth in employment.

Table 9.4 shows a positive and significant association between the use of accountants and employment growth in the agriculture sector while a negative association was found with the manufacturing sector. As indicated earlier both negative and positive growth in employment could be beneficial to both owner-managers and policy makers. To the policy maker, the growth in employment as a result of the use of accountants by the businesses in the agriculture sector could be used as a basis for future initiatives in promoting employment growth in the agriculture sector by providing subsidies to small businesses that use accountants. On the other hand, an inverse relationship between the use of accountants by businesses in the manufacturing sector appeared to suggest a contraction in the employment as indicated by Robson and Bennett (2000). The use of accountants could lead to an improvement in the inventory control system, proper costing procedures, and proper management of resources which could eventually increase efficiency and productivity. Drawing on the above finding, one can conclude that the use of accountants can affect employment growth in the manufacturing and the agriculture sectors although no such an association was found with the services sector. The finding also supports the conclusion drawn in Chapter 7 that the use of accountants had a significant impact on business performance and that has also been corroborated by other studies (See, Berry et al., 2006; Bennett and Robson, 1999; Kirby and King, 1997).

The estimates of OLS results of the survey data reveal a positive association between the use of customers and employment growth in the agriculture and the manufacturing sectors. Intuitively, this finding is not surprising but consolidates the conclusion drawn in Chapter 7 that customers were the most used source of external advice and had a direct impact on the performance of the businesses. Qualitative data

gathered from the respondents during the fieldwork which were quoted in Chapter 7 also appear to support this finding. However, the use of suppliers is not significantly associated with employment growth. Robson and Bennett (2000) had found that suppliers were positively associated with employment growth.

The use of social networks (friends, family and business associates) has been categorised as one of the most important sources of advice for many small businesses, particularly, in the developing countries (See, Jay and Schaper, 2003; Chell and Baines, 2000: Buame, 1996). The finding from the literature review was also supported by the results obtained in Chapter 7, although their impact on businesses was found to be moderate. The results in Table 9.4 show that there is no statistical association between growth in employment and the use of social networks.

With regard to the professional generalists the regression results exhibit no association between employment growth and the use of consultants and the universities/polytechnics. Nevertheless, the analysis of the survey data with regard to the impact of the use of consultants on the businesses' performance revealed a higher impact (See, Chapter 7). Wren and Storey (2002) also reported a significant effect of the use of consultancy advice on sales turnover and employment growth. In relation to the universities and the polytechnics, Berry et al. (2006) found a negative association with growth.

Next analysis focuses upon the use of business associations and growth. The results show a positive association between Chamber of Commerce and growth in employment by service sector, while a negative association was found with trade/professional associations. Although the levels of use of business associations were not comparable to that of the market and supply chain category or social networks, their significant association with employment growth in the services sector

underscores the need to encourage small businesses in the services sector to seek advice from the business associations.

Finally, in relation to sources of advice sponsored by government and the multilateral or bilateral agencies, the results show that the use of Technoserve by businesses in the services sector is negatively associated with employment growth, and the use of GRATIS/ITTU is also negatively associated with businesses in the manufacturing sector. For GRATIS/ITTU the contraction in employment growth could be explained as the result of improvement in efficiency and productivity. This is because GRATIS/ITTU aims at providing appropriate technology to small businesses to improve efficiency and enhance productivity although the same reason can not be assigned to Technoserve which is focused on the businesses in the agricultural sector.

In Appendix 2, the regression results are presented by including only sectorial dummies instead of presenting the equation for each sector. The regression tests results in Appendix 2 revealed three variables (gender, accountants, and trade/professional associations) showing substattial difference with the results reported in Table 9.4. In Appendix 2 gender shows a negative association with employment growth which appears to suggest that male owner-managers businesses were less likely to growth faster compared with their female counterparts. With regard to accountant, there was no statistical association with employment growth while the use of trade/professional associations revealed a negative association with employment growth.

9.5 Determinants of growth – Structural Equation Modelling (SEM) Approach

In the previous section, the determinants of small business growth were examined using multivariate analysis (ordinary least square - OLS). The framework used for the analysis was based on Storey's (1994) growth model and introduced the sources of business advice variables into the model. The variables used in the growth model are the characteristics of the owner-manager and the business, the business strategy and the external business advice which are the independent variables and the employment growth which is the dependent variable. Figure 5.1c provides a framework which suggests inter-relationships among the variables indicated above. This suggests that there could be the possibility of bias in the interpretation of the OLS results in the previous section as the technique does not take in consideration sample selection bias (Storey, 2000). Heckman (1997) also pointed out that in an attempt to evaluate the impact of a scheme on the performance of the beneficiary, it is important to note that the outcome of the scheme could be influenced by unobserved (latent) variables rather than the observed variables being evaluated. According to Heckman (1997:442) instrumental variables is used "when it is suspected by that persons sort into programmes or schooling levels on the basis of unobserved factors that affect outcomes but are not due to the programme or treatment being evaluated". Instrumental variables estimation techniques were considered, but it was felt that the Ghanaian data set which has been assembled lacked sufficiently robust variables to run IV estimation successfully. Structural equation modelling was utilised instead of IV.

More specifically, in order to overcome the limitations associated with the use of OLS regression techniques in examining small business growth in Ghana, this section employs structural equation modelling (SEM) techniques to examine the

relationships between the characteristics of the business and the owner-manager, business strategy, the external business advice and employment growth. According to MacCallum and Austin (2000: 202) "SEM is a technique used for specifying and estimating models of linear relationships among variables". The variables used in SEM models includ both observed and unobserved (latent) variables. McDonald and Ho (2002: 64) noted that "SEM is now a regular used method for representing dependency relations in multivariate data in the behaviour and social sciences". The alternative technique to SEM is the Two-Stage Least Square (2SLS) regression analysis which could also be used to address the problems associated with the use of OLS regression techniques in evaluating complex realtionships. However, MacCallum and Austin (2000:202) noted that SEM has the luxury of including multiple dependent variables compared with a single dependent variable in the 2SLS technique. Tomarken and Waller (2005: 35) also observed that alternative techniques in place of SEM to test such models 'only provides a separate "mini test" of model components that are conducted on an equation-by-equation basis'. Another advantage with regard to the use of SEM according to Tomarken and Waller (2005: 35) is that 'SEM allows the researcher to test directly the model of interest rather than a straw-man alternative'.

Notwithstanding the above advantages associated with the use of SEM, many researchers have avoided the use of SEM because of the complexities and problems associated with the specifications and estimation of SEM models with latent variables interactions (Tomarken and Waller, 2005). However, in recent years SEM has become a common method used for representing dependence relations in multivariate data in the social sciences as a result of the availability of commercial and freeware statistical packages such as AMOS, LISREL and EQS (McDonald and

Ho, 2002; MacCallum and Austin, 2000). The availability of statistical packages for SEM models have ensured that the problems associated with the use of SEM such as specification and estimation of latent variables, sample effect, and missing data are minimised because these packages have specific functions for dealing with these problems. For instance, MacCallum and Austin (2000) reported that Expected Cross-Validation Index (ECVI) is a procedure that can be used to take sample effect into account. Whilst McDonald and Ho (2002) reported that Multiple Manipulation has become a common method for dealing with missing data. In this analysis, AMOS statistical package is used because of the researcher's familiarity with the SPSS which has been used in the previous analysis which AMOS served as an offshoot. Also McDonald and Ho (2002) noted that AMOS is one of the available software for dealing with problems associated with the use of SEM models such as missing data.

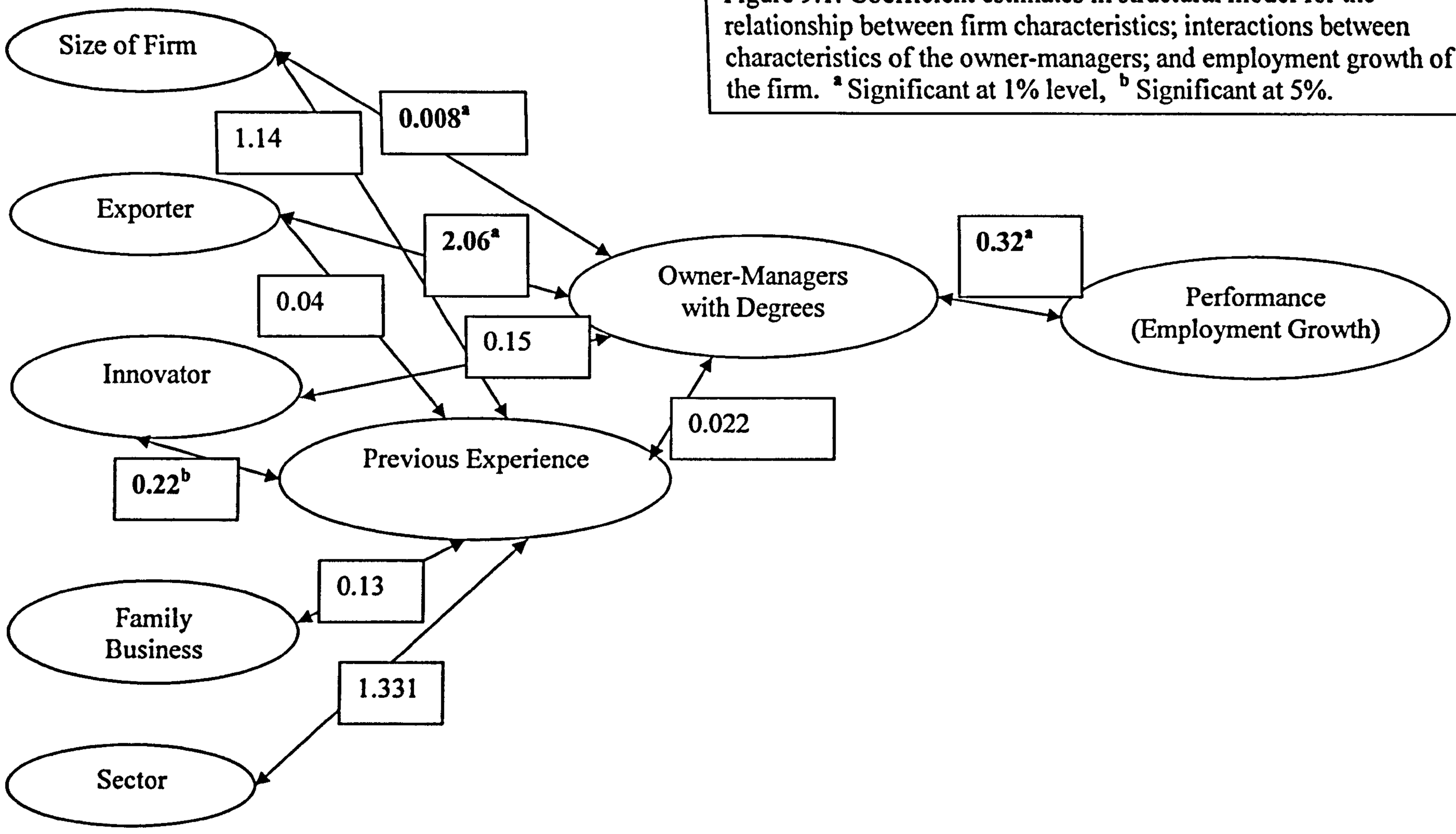
Structural equation models have the advantage of allowing complex interactions between variables to be taken into account. This is particularly relevant to the survey data on Ghana which is available in this chapter. A structural equation model allows estimation of direct and indirect effects, with measurement errors in both the explanatory and dependent variables. A strict sense of causality cannot be inferred from such a structural equation model but it does allow estimation of paths of association in those situations where the prior expectation of the direction of association in those situations can be confidently specified (see, for example, Bollen, 1989; Marcoulides, 1998). The researcher specifies the pathway of association expected between the characteristics of the owner-managers, the characteristics of the business, and firm performance as a hypothesis for which there is a prior expectation of a strong relationship. Given the very large number of variables which

are available, in this chapter we report one set of results for the model without business advice, and one set of results for the model with business advice included. Comments are made of the variables which were experimented with, and later dropped.

Figure 9.1 reports the coefficient estimates in the structural model for the relationship between firm characteristics, as represented by sector, whether the firm was a family business, innovation activity, whether the firm was or was not an exporter, and the size of the firm; interactions between characteristics of the owner-managers and in particular their skills and experience and whether they possessed a degree, all against the performance of the firm as measured by employment growth. Attempts to include the gender and the age of the owner-manager, and to include location measures produced misspecified models, with the Chi-Squared test statistic generating unrealistically high values. Focusing upon the results in figure 9.1 and 9.2, an important finding from the structural equation models as with the OLS estimates, reported in the previous section, is that none of the models offered a significant general explanation of the firm performance. Various attempts were made to re-specify the model using AMOS but in no case did the overall fit statistic indicate significance: no chi-squared estimated was less than 582. For structural equation models a high chi-squared value indicates a poor model fit; the null hypothesis is that the model is a good fit. Hence we reject the null hypothesis in each case: firm performance is not well explained by our models in any case. This accounts with the OLS estimates in the previous section where the coefficient of determination was not very high.

PAGE NUMBERING AS ORIGINAL

Figure 9.1: Coefficient estimates in structural model for the relationship between firm characteristics; interactions between characteristics of the owner-managers; and employment growth of the firm. [a] Significant at 1% level, [b] Significant at 5%.



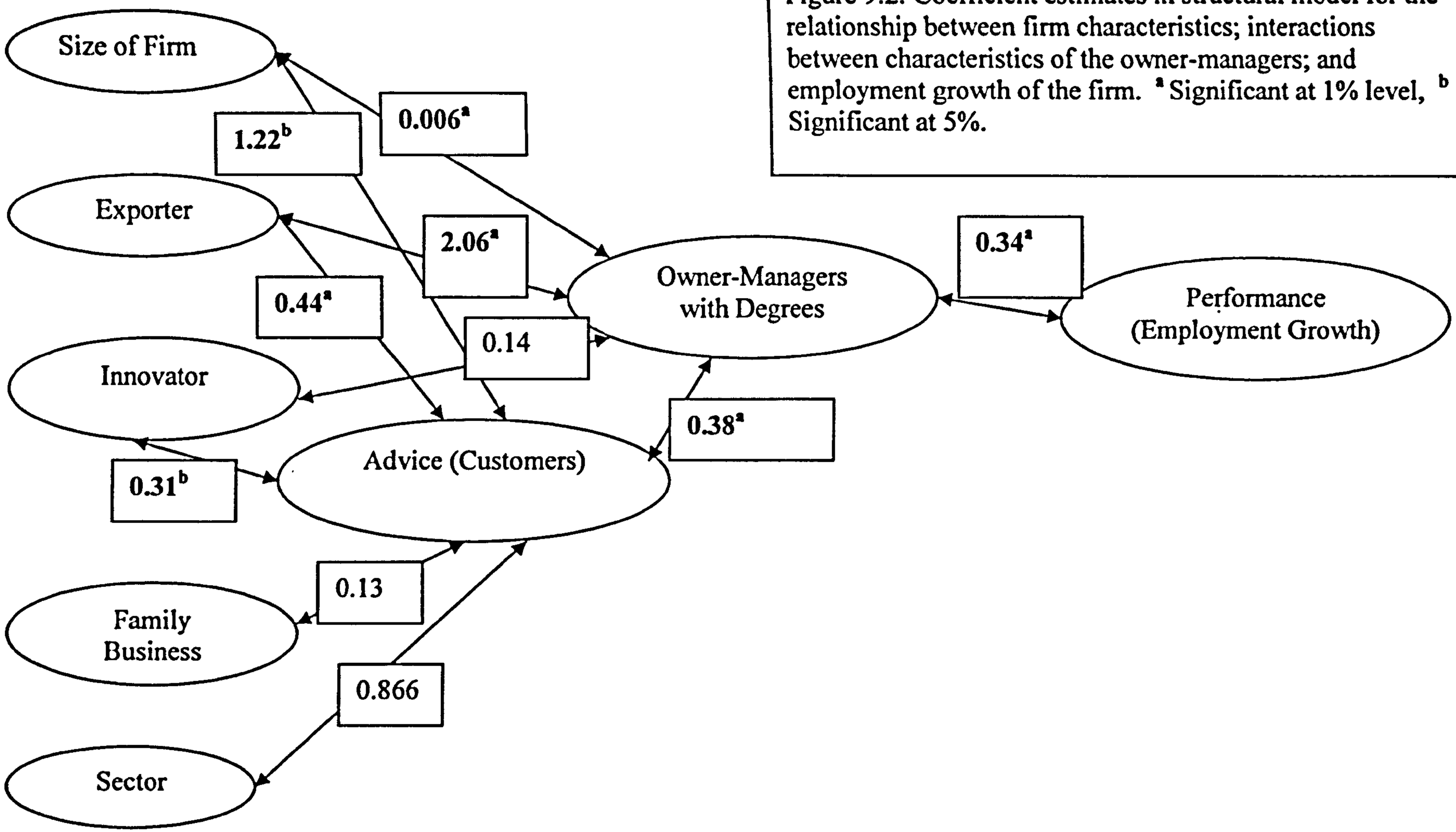


Figure 9.2: Coefficient estimates in structural model for the relationship between firm characteristics; interactions between characteristics of the owner-managers; and employment growth of the firm. [a] Significant at 1% level, [b] Significant at 5%.

PAGE NUMBERING AS ORIGINAL

Despite the poor overall fit, however, some individual coefficeients are significant and these do show us that some characteristics of the owner-managers and the firms do influence performance. An owner-manager with a degree level of education does have a positive effect on employment growth. In figure 9.1 the specific coefficients are shown and the level of statistical significance adopts the same symbol approach which has been utilised throughout the dissertation. The size of the firm is positively associated with owner-managers with degrees, but it did not have a positive statistically significant association with previous experience.

Being an exporter is also associated with owner-managers with degrees, but has no statistically significant relationship with previous experience. In other words, it is the degree education rather than previous experience which is related to exporting. Family business and also sector were not statistically significant in our models. Attempts to specify direct relationships between family business and sector to the owner-managers' education also did not produce any statistically significant results, and the chi-squared values deteriorated dramatically.

Innovation was not related to the degree education of the owner-managers, but it was related to previous experience; thus suggesting that some kind of learning by doing and accumulating experience are more useful for creating innovation, compared to people having degree levels of education.

The results in figure 9.2 show the incorporation of business advice into the model specified in figure 9.1. Incorporating multiple sources of business advice into the structural equation model did not work very satisfactorily; again, the Chi-squared overall measure of the goodness of the model produced very high values, and the coefficients on some of the variables was too high. In response to this it was decided to incorporate the use or non-use of one source of advice at a time into the model.

Further logical re-estimation of the model using AMOS and replacing previous experience with the advice variable produced a lower chi-squared value (421) which suggests a better model, and also found that the use of customers for advice did have a part to play in the firms' performances.

In figure 9.2 we initially focus upon the advice variable. Family business and also sector are not related to the use of customers. However, innovating and also exporting firms were more likely to use customers. Also, owner-managers with degrees were more likely to use customers for advice. In other words, owner-managers who need some assistance with their business and they possess a degree are seeking some kind of information or help to solve a problem in their firm, and overall this does have a bearing upon firm performance.

The SEM reported in figure 9.2 was re-estimated one at a time for each of the other range of sources which the firms could have used. In none of the other models was there any statistically significant relationship between the advice variable and the other variables linked to advice (size, exporter, innovator, family business, sector, and the owner-manager possessing a degree). This leads us to tentatively suggest that whilst the estimation of growth relationships are difficult, only the use of customers was associated with firm performance.

9.6 Conclusion

This chapter has examined the determinants of small businesses' growth in Ghana. After an extensive review of the literature on various theories and models of growth in Chapter 4, Storey's (1994) growth model was adopted for this study. The Storey (1994) growth model identified three major components that influence the

growth of small businesses as the characteristics of the owner-manager, the business, and the business strategy. The elements of those components formed the basis for the analysis of the determinants of small businesses growth. The growth of the businesses was measured in terms of employment and it was determined by changes in the number of employees from the period 2002 to 2005. An annualised rate of growth method was used.

The first set of regression model techniques focussed upon OLS regression techniques to determine the association between employment growth and the various factors which influence small businesses' growth. The growth variables included in the models were arrived at after an extensive literature review of empirical studies of the determinants of small business growth (See, Chapter 4) and the survey findings in Chapters Six and Seven. A total of 13 variables were included in the model and they comprised the gender, age, education and previous experience of the owner-managers; size, location and the family-ownership for the business; and R&D, innovation, and export for the business strategy. Furthermore, the regression model was extended to include the sources of external advice to determine their influence on growth. Here the sources were categorised under seven main heading: professional specialists, market and supply chain, social networks, professional generalists, business associations, government sponsored schemes, and bilateral and multilateral agencies.

Given all the variables included in the regression models in this chapter, this study has revealed the two most important factors that determine employment growth of small businesses in the three main sectors, agricultural, manufacturing, and services of the Ghanaian economy as the age of the owner-manager and the size of the business. This study has shown that younger owner-managers businesses tended

to grow faster than the older owner-managers' businesses. This finding confirms similar conclusions drawn by many studies that have examined the determinants of small businesses growth (See, Brown et al., 2005; Almus and Nerlinger, 1999; Barkham et al., 1996; McPherson, 1996). For the relationship between the size of the business and growth in employment, the study revealed that medium-sized businesses appeared to grow faster than the micro-and small-sized businesses. This result contradicts the theory that small businesses are founded with suboptimal size and therefore grow quickly to reach efficient size (Almus and Nerlinger, 1999: 145). It also belies a number of studies that have concluded that small businesses grow faster than the larger-sized businesses (Yasuda, 2006; Davidsson et al., 2002; Mead and Liedholm, 1998; McPherson, 1996). Nevertheless, the results confirm other studies undertaken in the study area that have found larger-sized businesses growing faster than the small-sized businesses (Teal, 1998; Biesebroek, 2005; Frazer, 2005).

Following the inclusion of the sources of external advice variables into the regression model, the survey result of the size of the business and employment growth is consistent with the earlier finding. However, the age of the owner-managers was found to be negatively significant with growth for businesses in the manufacturing and the services sectors only. With regard to the use of external advice, the two most important variables that appeared to have influenced small businesses growth in employment, particularly, in the agricultural and the manufacturing sectors were accountants and customers. These findings underpin the important role that the use of accountants and customers plays in promoting the growth of small businesses as observed in the previous studies (See, Berry et al., 2006; Ramsden and Bennett, 2005; Bennett and Robson, 2003; and Jay and Schaper, 2003).

Other interesting findings that emerged from the analysis were the positive associations between owner-managers with secondary school qualifications and family businesses with growth in the manufacturing sector. On the other hand, gender and 'A' level or higher qualifications were negatively associated with growth in the services sector. Surprisingly, friends and relatives and the suppliers which placed second and third positions in terms of the use of external advice were not significantly associated with growth in employment.

This chapter aimed at investigating the determinants of small businesses employment growth in Ghana. Although many factors were identified from the literature to influence small businesses growth, after examining 29 variables in regression tests the results showed that only the size of the business was consistently found to be significantly associated with growth in employment. This therefore confirms with Davidsson et al. (2002: 334) observation that 'business size is the most widely studied factor for its contribution to growth'.

Endogeneity of growth as a variable is problematic and in response to that issue the researcher embarked upon alternative measures of estimating the firms' employment growth. Instrumental variables and Strutural Equation Modelling were the two other candidates which could be potentially deployed in this chapter. Instrumental variables was ruled out because of a lack of suitable instruments which could be incorporated into a 2SLS estimation models. SEM offered a much more powerful tool than OLS to explore in greater depth more complex associations.

SEM involves a trial and error process, and using AMOS, arguably the market leading software, a series of models were used to estimate models which took into account characteristics of the firms, the owner-managers, and the strategies of the owner-managers. It was found that the location of the firm, and also the owner-

managers' characteristics of gender and age could not be successfully incorporated into our models – the results suggested ill-fitting and misspecified models. Thus, in contrast to the OLS results which suggested that gender did have a role in explaining firm performance this is not the case for the SEM results.

The AMOS results show that whether or not the owner-manager had a degree level of education was strongly associated with firm performance. This result contrasts with the OLS results, but given the very different models and methodologies this is not entirely surprising. In the SEM models it was also found that the size of the business, innovation activity and also exporting activity were systematically related to using advice from customers, and was also related to whether or not the owner-managers had a degree. Moreover, the AMOS results suggest that it was only the use of customers which was systematically linked to the firms' growth process. None of the other sources of advice was statistically significant.

Taken together the results in this chapter have shown that estimating firms' growth performance is a difficult activity, and the choice of statistical software and methodology have a great bearing upon the results which are obtained. The size of the firm appeared to be the only consistent variable between our two approaches OLS and SEM, and suggests that it is the larger the business which are ones more likely to be associated with employment growth.

Chapter Ten

Summary, findings and implications

10.1 Introduction

This study has aimed at understanding the problems that hinder small businesses growth in Ghana and also examined the influence of the use of external business advice on small businesses growth in Ghana. This topic was chosen in response to the call for academics to take active interest in the study of the impact of the various governments support schemes on small businesses growth in order to contribute to the growing knowledge of the field of small business development and to influence policy initiatives in Africa and Ghana in particular where little empirical studies have been undertaken in this area. In order to achieve the above objectives, this study focused on three key themes, the barriers to small business growth, the use and the influence of external business advice on small businesses growth and the factors that determine small businesses growth in Ghana.

The chapter is organised as follows. Section two summarises the literature review of the three main themes of the study while section three provides a summary of the main research findings. Section four reports the implications of the research findings to theory and practice. Section five discusses limitations of the study and their implications for future research.

10.2. Summary of the literature review of the main themes of the study

This section summarises the literature review of the barriers to small businesses growth, the nature of external business support, and the determinants of small business growth in Ghana.

10.2.1 Barriers to small businesses growth

In chapter two, an extensive review of the empirical studies of the problems that faced small businesses was undertaken. Compared with the larger sized businesses, it was found that the performance of small businesses in terms of survival, competitiveness, and growth has not been encouraging in many countries (Mead and Liedholm, 1998; Bates, 1990). Specifically, various empirical studies have revealed that among the most consistent problems that prevent small businesses from achieving their objectives in both developed and developing countries included finance, market demand, and managerial skills. In Africa, problems such as unfavourable economic environment, poor infrastructure and socio-cultural factors were some of the problems that had been found to hinder the growth of small businesses. Notwithstanding the above findings, evidence from the literature showed that most studies in this area have focused on the developed countries such as the UK and the US (Orser et al., 2000; Smallbone et al., 1995). In recent years, studies that have attempted to close this gap in many developing countries included works of Aidis (2005) in Luthuania; Trulsson (2002) in Southern African countries; Wolf (2004) and Tagoe et al. (2005) in Ghana. This chapter formed the theoretical foundation for the first empirical chapter of the study which examined the barriers to the attainment of small businesses objectives in Ghana in Chapter 6.

10.2.2 Business advice

Chapter three examined the literature of the nature of external support to small businesses, the rational for governments' interventions, the sources and the demand for external business advice, and the impact external business advice on small businesses growth. The literature revealed that external support to small businesses

in recent years had focused on the financial and non-financial services. Nevertheless, in many African countries the provision of infrastructure had also been provided to small businesses. Although various reasons have been given for governments interventions in the provision of external support services to small businesses Wren and Storey (2002) noted that the rational for most governments interventions had been due to perceive 'market failure'. However, in many developing countries such as Ghana, the main rational for the intervention had been based on social related issues such as employment creation and poverty alleviation (Ninsin, 1989; McPherson, 1996; GPRS, 2002).

Focusing on Ghana, the literature revealed that government support to small businesses came to the limelight in 1970s when the UP government passed the Ghanaian Business Promotion Act of 1970 (Act 334). Later years saw the setting up of GEDC in 1975 and NBSSI in 1985. In recent years there had been the proliferation of many support services for the promotion small businesses from both government and the private sources. However, there is little evidence of independent studies on the impact of such schemes on the performance of small businesses. To address this research gap, this study also focused on two support schemes in Ghana, NBSSI (government agency) and Empretec Ghana Foundation (private agency), in terms of their use and impact on small businesses performance in Chapter 8.

For the sources and use of external business advice, various empirical studies had found that the governments' schemes were the least used as compared to the private sources with the later having the most significant impact on the performance of small businesses. For the factors that influence the demand for support services, there was evidence from the literature that the characteristics of the businesses and the owner-managers and the business strategy appeared to influence the use of

external business advice. In Chapter 7 the sources, the levels of use, and the impact of external business advice on small businesses growth were examined.

10.2.3 Determinants of small business growth

With regard to the theories and the various empirical studies of determinants of small businesses growth, chapter four revealed that growing businesses played significant role in terms of job creation in many economies. However, the various theories that explain the growth of small businesses have been described by some researchers as fragmented and inconsistent (Weinzimmer, et al., 1998; Davidsson and Wiklund, 1999). Among the theories that explain the growth of small businesses examined include Gilbrat's (1931) 'law of proportionate effect', Penrose's (1959) resource-based view, and Jovanovic (1982) learning theory. A literature review was also undertaken of studies that have attempted to explain the determinants of small businesses growth in recent years. Such studies include the works of Davidsson (1991), Storey (1994), Garnsey (1998), and Orser et al. (2000). This study adopted Storey (1994) growth model to examine the determinants of small businesses growth in Ghana in chapter 9 although the model was extended to include the sources and the use of external business advice variables in the second regression analysis. To attempt to control for problems of endogeneity the researcher used structural equation modelling techniques.

10.3. Summary of the research findings

To achieve the objectives of the study which include the understanding of the problems that hinder small businesses in the attainment of their business objectives and also the examination of the influence of the use of external business advice on

small businesses' growth in Ghana, a survey of 500 owner-managers located in six regions of Ghana was undertaken. This represented a response rate of 83.2%. Respondents were from the agricultural sector (18%), manufacturing sector (38.6%), and the services sector (43.4%). The survey sample was designed to include small businesses that employed between 4 and 50 full-time workers. The size of the businesses in terms of the number of employees was categorised as micro (4-9), small (10-19), and medium (20-50). The data were highly weighted towards medium sized businesses and the final sample proportions were micro (60.2%), small (23.7%), and medium-sized businesses (16.1%). The subsequence sections summarise the key findings from each of the four empirical chapters grouped under the following headings: the barriers to small businesses growth in Ghana, the business advice, use and satisfaction of NBSSI and Empretec support schemes, and the determinants of small businesses growth in Ghana.

10.3.1 The barriers to small business growth

This chapter examined the barriers that hinder small businesses in meeting their business objectives over a three year period. Data were gathered on 37 barriers that affect the performance of small businesses under the categories of finance, market, managerial and technical, input, economic and regulation, infrastructure, socio-cultural and others. The survey data revealed that the three greatest problems faced by the businesses were under the financial and economic categories such as the high rate of inflation (71.4%), interest rates being too high (68.5%), and the high depreciation rate of the Cedi (63.5%), where the figures in parentheses are the percentage of respondents who indicated that this was an important or a crucial problem. Interestingly, the study found that corruption and registration, licensing and

red tape were amongst the least mentioned barriers, although firms in conurbations were more likely than firms in small towns to have these problems.

With regard to the association between business characteristics and the barriers to the attainment of business objectives, the study found that businesses which employed family members were more likely to face more barriers than the non-family businesses. This particularly applied to financial related problems. These results were consistent with previous research in Africa which had shown the importance of the extended family, although in the case of Ghana there was a lack of empirical research by previous researchers. Furthermore, the findings of the study also showed that businesses in conurbations were more likely to encounter barriers to growth particularly in the area of infrastructure and were the least likely to use business resources to support family members. Also, the research results revealed that the size of the businesses and the sector were strongly related to the likelihood of encountering barriers, but the nature of the relationships was mixed. For growing businesses, the study showed that fast growth businesses were more likely than other businesses to encounter barriers.

On the relationship between business strategy and the barriers to growth, the study found that whether or not a business was involved in exporting activity was not related to encountering of business problems. However, businesses involved in innovating activity the research results showed that non-innovators were more likely than innovators to encounter managerial and technical barriers. But, innovators were more likely than non-innovators to encounter the barriers, the high cost of utility charges, and the low quality of electricity and water supply, which were both infrastructure barriers. For the expenditure on R & D, the results showed that in general those firms which undertook R&D were less likely to encounter barriers than

those who did not spend money on R&D, and in particular were less likely to encounter most of the managerial and technical and inputs factors.

In terms of the characteristics of the owner-manager, the study found that sex and age were generally not related to barriers in business. Instead it was education which was more important as a set of explanatory variables. Indeed it was those owner-managers who had Advanced level (equivalent of US high school graduation) or higher qualifications were less likely to encounter barriers.

10.3.2 Business advice

This chapter explored the sources of external advice used by small businesses in Ghana, the number of sources used, that is, whether single or multiple, the influence of the characteristics of the business and the owner-manager on the use of external advice, and the levels of impact of the advice used by those businesses. Data concerning the use and impact of business advice from seven categories of advice (market and supply chain, friends, social networks, professional specialists, professional generalists, business associations, government sponsored-agencies and bilateral and multilateral agencies) were gathered from the businesses surveyed.

The survey results revealed that the most widely used categories of business advice were market and supply chain and social networks with customers obtaining 81.8% responses, followed by friends and relatives that obtained 66.1% responses, and thirdly suppliers which received 54.6% responses. Government, bilateral and multilateral sources were the least used sources of advice. Among the least used sources, APDF obtained the lowest response rate (5.5%), followed by TecnoServe (7.4%), and GRATIS/ITTU (8%) where the values in parentheses represented the levels of use of the sources. This result reflects similar observations made in studies

undertaken in other countries (Berry et al. 2006; Ramsden and Bennett, 2005; Boter and Lundstrom, 2005; and Jay and Schaper, 2003; Bennett and Robson, 2003).

In relation to the business characteristics, the use of professional specialists (accountants, solicitors, and banks) was found to be positively related to the size of firm, firm growth, export involvement, innovation, and urban location. The data also revealed that although business advice from social networks remains high across all firms, the relative importance of friends and family declines with businesses located in the large and conurbation. When compared to the characteristics of the owner-manager, the use of different sources of business advice varies by gender and level of education. Female owner managers have a higher level of usage than males, and the importance of friends and relatives as sources of advice declines as educational level increases.

The research findings on the take up of each source of advice that is, whether businesses used single or multiple source(s) of advice revealed that friends and relatives, customers, and suppliers were the most important sole source users of advice. The public and the private support agencies were not used as sole sources of advice by the small businesses but were rather used by heavy users of external advice. That is, users of six or more sources of business advice.

The survey findings on the assessment of the impact of the use of external advice on achieving business objectives revealed that sources which received the highest levels of use (especially customers, accountants, and suppliers) also made the highest impact while the sources which obtained the lowest levels of uses (such as, APDF, Chamber of Commerce, and GRATIS/ITTU) made the least impact. The lesson drawn from this finding could be that the low use of public and private support agencies could be attributed to the low level of impact obtained from the use

of those sources. However, the data concerning impact also showed that, although the importance ranking of consultants is relatively low, their impact is reported to be high. This is particularly the case with medium sized firms and growing firms.

10.3.3 Use and satisfaction of NBSSI and Empretec business support schemes

This chapter examined the support services provided by NBSSI and Empretec to small businesses in Ghana in terms of the levels of use, the levels of satisfaction obtained from the use of the services, and whether the characteristics of the businesses and the owner-managers influenced the use of NBSSI services and the reasons why some businesses did not use the services. The subsequent sections report the major findings from this chapter.

Among the major findings in terms of the levels of use of both schemes included the high use of services such as sales and marketing, entrepreneurship awareness, and general management. However, services such as loans, credit facilitation, and innovation and technology were the least patronised by the small businesses. In addition, it was also noted that NBSSI services had a higher rate of use than the Empretec services and this could be due to the differences in the costs of accessing the services. In terms of the number of fields used for NBSSI services, it was found that users of NBSSI services were heavy users of external advice confirming the earlier results obtained from Chapter 7.

With regard to the association between the levels of use and the characteristics of the owner-managers and the businesses particularly for NBSSI, the study found less significant associations between the variables. However, there were few compelling findings that need to be stated. The study found that many businesses that indicated to have provided training to their workforce least used NBSSI services

compared with the non-training providers. Furthermore, the study revealed a positive association between the use of workforce/seminar and innovation and technology training and the businesses involvement in innovation activities.

For the levels of satisfaction, the study revealed that services which received the highest levels of use were the most satisfied while those with the lowest used rates were least satisfied, particularly services such as loan, credit facilitation, and innovation and technology for the later. On the average, Empretec users were the most satisfied and this confirms Suzuki's (2002) assertion that private support agencies were more likely to provide higher quality services than the public support agencies. On the association between the levels of satisfaction obtained and the characteristics of the business and the owner-manager, the study demonstrated less significant relationships.

Finally, among the main reasons given for the non-use of both schemes included the lack of awareness about the existence of services, the high cost of services fee, and support not relevant to our needs. Interestingly, qualitative information gathered also revealed that government interference in the activities of public support agencies discouraged some respondents from using government support services.

On the influence of the characteristics of the businesses and the owner-managers against the reasons for the non-use of support services, it was found that the location of the business, growth rate, age and educational qualifications of the owner-managers were the most significant explanatory variables. Compared with businesses located in conurbation and large towns, the study found that businesses located in the small towns were most likely to report unaware about the services and the services not located in their areas of operation. It was also found that fast growth

businesses were the most likely to report time constraint as the reason for non-use of the services. Furthermore, older owner-managers were most likely not to use NBSSI services for reasons such as external advice not needed, support not relevant to our needs, unaware of the services, and services not located in their areas of operation as compared to younger owner-managers. For the educational qualifications, owner-managers with technical or vocational and Advanced level or higher were the most likely to indicate external advice not needed and least likely to indicate unaware of services when compared with those with Junior or no educational qualifications. However, owner-managers with secondary school qualifications were the least likely to indicate external advice not needed and unaware of services as the reasons for the non-use of NBSSI.

10.3.4 The determinants of small businesses growth in Ghana

This chapter aimed at investigating the determinants of small businesses employment growth in Ghana. Although many factors were identified from the literature to influence small businesses growth, after examining 13 variables in the first multiple regression tests, the results showed that only the size and the age of the owner-manager of the business were found to be significantly associated with growth in employment in all the three sectors (agriculture, manufacturing, and services) of the economy. This findings showed that younger owner-managers' business tended to grow faster than the older owner-managers'. For the relationship between the size of the business and growth in employment, the study revealed that medium-sized businesses appeared to grow faster than the micro-and small-sized businesses. This result contradicts the theory that small businesses are founded with suboptimal size and therefore grow quickly to reach efficient size, hence small businesses growing

faster than the larger businesses (Almus and Nerlinger, 1999: 145). Nevertheless, the results confirms the findings of other studies undertaken in the study area that have found larger-sized businesses growing faster than the small-sized businesses (Teal, 1998; Biesebroek, 2005; Frazer, 2005).

Furthermore, when the sources of business advice variables were introduced into the regression models, the size of the business was the only variable that showed significant association with employment growth in all the three sectors of the economy. The age of the owner-managers was found to be negatively significantly associated with growth for businesses in the manufacturing and the services sectors only. For the sources of the business advice, the two most important variables that appeared to have influenced small businesses growth in employment, particularly, in the agricultural and the manufacturing sectors were accountants and customers. In addition, the research found that the use of Chamber of Commerce was positively associated with employment growth in the services sector although the use of trade/professional associations and TechnoServe by the businesses in the same sector was negatively associated with employment growth.

The growth performance was then estimated using SEM techniques and the AMOS software. The SEM models found that size of firm, exporting activity and also innovation activity were statistically significant, but sector and also family business were not statistically significant. The possession of a degree was found to be statistically significantly related to firm employment performance. The characteristics of the business – innovation and exporting activity and also size were all statistically related to the possession of a degree. But, interestingly the age of the firm (or the age of the owner-manager), the gender of the owner-manager, and the location of the business were not related to firm performance or any of the other

variables included in the model; indeed these variables were omitted because they contributed to a poorly fitting model. The SEM results produced results which suggest that the use of business advice as a vehicle to facilitate employment growth need to be treated very carefully. Indeed it was only the use of customers which was found to be statistically significantly related to the characterstics of the firms and the owner-managers.

10.4. Theory and policy implications of the findings of the study

The above summary of the findings of the study have many implications for theory and practice. The lack of research that has taken a holistic approach to explore barriers to small businesses growth, the use and impact of external business advice on small businesses growth, and the determinants of small businesses growth in relation to the characteristics of the owner-manager, the internal resources of the business, and the business strategy in Ghana means that this study has the potential to make an important contribution to the understanding of new venture creation in developing countries.

10.4.1 Theoretical implications

As indicated in Chapter 4, the study of small business growth has received an unprecedented amount of attention by researchers in recent years. However, the various theories of small business growth have been described as sparse (Garnsey, 1998) while Davidsson et al. (2000: 1) noted the various economic theories of small business growth as 'crude and contradictory'. This study has examined small business growth theories such as the Gibrat's (1931) law of proportionate effect, Penrose's (1959) resource-based view, and Jovanovic's (1982) learning theory. Other

empirical studies of small business growth also examined included the works of Davidsson (1991), Storey (1994), and Garnsey (1998). By adopting Storey's (1994) growth model which brought together the various elements of growth theories under one framework this implies that the findings of this study have implications for theory development.

In general, the findings of the study appeared to support Penrose's (1959) resource-based view theory which used the concept of internal resources of the business to explain its performance. The overall findings of the study appeared to show that businesses which had access to both human and capital resources performed better than those that lacked access to these resources. Specifically, the findings with regard to the barriers to growth chapter demonstrated that the availability of resources influenced the business susceptibility to barriers to the attainment of business objectives. This study has also shown the distinction between family and non-family businesses in terms of their susceptibility to barriers to the attainment of business objectives. The findings of the study revealed that family businesses were more likely to face more barriers than non-family businesses. This was probably due to the lack of human and financial capital resources associated with family businesses as reported in the barriers to growth chapter and which had also been confirmed by many empirical studies (Ibrahim, et al. 2003; Sirmon and Hitt, 2003; Saffu, 2004; and Kotey, 2005). For human capital in particular, the study revealed that owner-managers with higher educational qualifications were less likely to encounter barriers to growth as compared with those with lower educational qualifications. The importance of human capital and the level of innovation activities of the businesses were inferred from the research finding of significant association between non-innovators and the managerial and technical barriers.

In terms of the use and the impact of business advice on the performance of the business, the study revealed that the use of business advice particularly, professional specialists (accountants, solicitors, and banks) and markets and supply chain networks was positively related to the size of firm, firm growth, export involvement, innovation, urban location and the educational qualifications of the owner-manager. The survey results showed that medium-sized businesses were more likely to use the above mentioned sources of business advice than the micro and small businesses. This finding can be linked to the resource based view theory of the firm growth as the survey results indicated that medium-sized businesses appeared to have more resources than the micro and the small-sized businesses. Furthermore, the study has demonstrated the relationship between the human capital and the use of external advice. Higher levels of education are positively associated with the use of professional specialists and professional generalists and the supply chain and which appeared to have a significant impact on the performance of the businesses when used. Once again, the internal resources such as higher level of education of the owner-manager had shown an association with the use of business advice, particularly, from those sources that empirical studies (See, Hill et al., 1999; Bennett and Robson, 2003; Ramsden and Bennett, 2005; Berry et al., 2006) had found to be likely to influence the firm performance. For the impact of the use of business advice on the performance of the businesses, the findings of the study have shown that the business relationships with professional specialists (accountants, banks, and solicitors) are likely to have a direct impact on the infrastructure of the businesses, which indirectly affects business performance.

With regard to NBSSI and Empretec support services, the research findings appeared to support the significance influence of both human and financial capital

resources and the use of these schemes. The findings of the study show that the users of NBSSI and Empretec schemes were heavy users of business advice, that is, from six or more sources and this could be linked to the resources available to those businesses. Furthermore, the survey results revealed that lack of awareness was the number one reason for non-use of NBSSI and Emprctec support schemes, however, further analysis demonstrated that owner-managers with technical or vocational and Advanced level or higher qualifications were the least likely to indicate unaware of support services when compared with those with Junior or no educational qualifications. Also, lack of financial resources probably prevented many businesses from accessing various support schemes, particularly, from the private sources as 26.5% of the owner-managers indicated high cost of service fee as another reason for the non-use of business support schemes. Further evidence from the study with regard to the size of the businesses and the reasons for non-use of external support services demonstrated that medium-sized businesses appeared to be least likely to report the high cost of service fees as an explanatory factor while small-sized businesses were more likely to report high cost of service fees as a reason for non-use of external support service. The above findings have also demonstrated the importance of the internal resources (human and financial) of the firm to the achievement of competitive advantage over its rivals as indicated by Penrose (1959), Wernerfelt (1984) and Barney (1991).

In terms of networks theory, this study has demonstrated that due to the inadequacies of the institutional environment in Ghana (Buame, 1996; Aryeetey and Ahene, 2004) networks and social contacts are used as substitute for formal market-supporting institutions (Barr, 1999: 129) with regard to the take-up of business advice. The findings of the study show that micro businesses, businesses located in

the small towns and the owner-managers with educational qualifications below Junior Secondary School level reported higher levels of use of sources of advice such as customers, suppliers, business associates, and family and friends. Qualitative data gathered during the survey also support the survey findings indicated above.

'Our suppliers and business associates give us the best advice to enhance our businesses'.

'Suppliers organise seminars for us from time to time and this helps our business to grow'.

'My business is centred on my customers and suppliers and they keep me in business'.

'The public and private sources of advice are very expensive. Businesses nowadays do not make enough profit to spend on advice'.

The above research findings demonstrate that interpersonal and social networks play an important role as information and advisory sources for small businesses in Ghana and further confirm similar studies undertaken in Ghana (Buame, 1996; Barr, 1999). In sum, Buame (1996: 200) observation that '*interpersonal sources are considered the most important sources of information and even for acquiring certain skills, such as use of special machines and equipment that are acquired by friends in the locality*' is supported by this study.

For the determinants of small businesses growth, this study has demonstrated that the size of the business is one of the most consistent factors in determining the growth of small businesses. However, the finding belies the existing belief that small businesses grow faster than the larger businesses (Jovanovic, 1982). Instead, the results from this study confirm the findings of the existing empirical studies that

large-sized businesses grow faster than small-sized businesses in Ghana. This finding contradicts Jovanovic's (1982) learning theory and Gilbrat's (1931) law of proportionate effect. However, this result apparently supports Penrose's (1959) resource-based view which links the internal resources of the business to firm performance as noted by Penrose (1995: 217) '[the] amount of resources administered by a firm has in itself a significant influence on the opportunities for expansion open to the firm'. In the Ghanaian context various empirical studies have revealed that large businesses are likely to have access to more resources as compared to small businesses, hence, the low survival, growth, and productivity rates of the small businesses (Frazer, 2005; Soderbom and Teal, 2002; and Teal, 1998).

10.4.2 Practical implications

This study has provided an in depth analysis of the factors that influence the growth of small businesses in Ghana. By contributing to the understanding of the factors that promote the growth of small businesses, it is hoped that the findings will better informed policy makers and owner-managers to make good decisions so as to promote the growth of small businesses in Africa and Ghana in particular.

Barriers to small businesses growth

First, this study has demonstrated the major barriers that hinder small businesses growth in Ghana. The study found that macroeconomic policies of the Ghanaian governments have been one of the major barriers to small businesses development in the country. By controlling inflation and providing exchange rate stability, the government could create the right conditions for small business development in Ghana. The findings also highlight the poor infrastructure

development faced by small businesses. By improving infrastructure framework in Ghana, particularly, the quality of electricity and the water supply, the telecommunications network, and providing more industrial sites will in the long-run promote the development of small businesses in the country.

Second, the results serve to highlight to policy makers in Ghana the profiles of the types of businesses and owner-managers who are, and are not likely to encounter barriers. The findings show the importance of education as an explanatory variable to barriers to small businesses growth. The study reveals that owner-managers with Advanced level or higher qualifications were less likely to encounter barriers compared with those with lower qualifications. Furthermore, the findings also showed that non-innovators were more likely to encounter managerial and technical problems than innovators. In order to promote the growth of small businesses, the government could promote quality education and also encourage people to stay at school longer. In addition, the government could encourage small businesses to provide formal training to their workforce in the form of subsidizing the cost of training as oppose to the traditional apprenticeship training. This recommendation is supported by the findings of this study which revealed a significant and a positive impact between the use of consultants, universities and the polytechnics and the innovation activities of the businesses.

Third, the study found that businesses which employed members of the family (family businesses) constituted about 72.4% of the surveyed businesses. However, family businesses were found to encounter more barriers than the non-family businesses. The dominance of family businesses in the Ghanaian economy is therefore a major constraint on small businesses growth although this result is not compatible with the finding in Table 9.3 which showed a positive association

between family businesses and growth in employment in the manufacturing sector. Whilst it is easy to suggest the abandonment of cultural obligations to employ family members, and the adoption of competency-based recruitment techniques, such changes would be dramatic and unrealistic in the short term in a society in which the family is a major structural force.

Business advice

The study has shown that in spite of the huge amount of resources that governments and the multilateral and bilateral agencies invest in the provision of business advice to small businesses; this study found that schemes initiated by those bodies have low levels of use when compared with the private sector support schemes. The findings suggest a lack of awareness and accessibility as the major reasons for non-use of support services particularly owner-managers with lower educational qualifications for the former while the later relates to businesses located in the small towns.

The findings reveal that education and the location of the businesses had a significant influence on the use of specific sources of business advice. Interestingly, owner-managers with higher educational qualifications and the businesses located in the conurbations were significantly associated with the use professional specialists and generalists. Those sources of business advice had a significant impact on the growth of small businesses particularly, the business involvement in innovating and exporting activities. To promote the growth of small businesses government could encourage the use of professional specialists and generalists. For NBSSI and Empretec schemes, the findings of the study revealed that the most used services

were sales and marketing and general management while the least used services were credit facilitation/loan and innovation and technology.

For the government, multilateral and bilateral support schemes to make a significant impact on small businesses performance in Ghana, it is imperative that the awareness of their schemes are created to the grassroots level where majority of small businesses in the country operated. The services could also be made more accessible to small businesses located in the small towns where they lack access to professional business advice services. Finally, the importance of professional specialists and generalists in providing business advice to small businesses may mean that the services of government-sponsored sources and bilateral and multilateral agencies may be more effectively marketed to small businesses via these intermediaries, rather than directly to businesses.

10.5 Limitations of the study and implications for future studies

The previous section highlights the implications of the research findings for theory and practice. Nevertheless, there were some shortcomings of the study which have implications for future research. The study adopted positivism research paradigm which has been associated with the lack of in depth analysis in terms of understanding situations and providing meanings to phenomenon being investigated. In this study, the research questionnaire and its subsequent administration were undertaken in a way that ensured that both quantitative and qualitative data were captured. Notwithstanding the above reason, a case study in the form of longitudinal study could be used to provide further in depth understanding of the problems that faced small businesses and the use of social networks in the provision of advisory services to small businesses. In measuring the growth of small businesses the

literature revealed that sales and employment were the two most consistent values used to measure the growth of small businesses (See, Chapter 4). Although McPherson (1996) has argued that the best basis in defining growth should either be sales turnover or profit, this study could not use that bases due to inadequate information gathered during the survey. The use of sales or profit as measures of performance in future research could provide a clearer picture about the impact of the use of external advice on small businesses growth and the determinants of small businesses growth in Ghana.

Furthermore, McMullan et al. (2001: 38) have observed that research studies involved in impact evaluation are associated with great difficulty. Study of this nature is therefore likely to be limited by a number of factors such as missing data, sampling problems, deciding the time scale to investigate the impact, the absence of control group comparison, measurement problems and the problem associated with cross-sectional data analysis. It is therefore suggested that future studies in this area when deciding the time scale should consider using longitudinal approach to investigate the relationship between the use of advice or training and business performance in order to enhance the validity of the research results (Patton et al. 2000). Also, Storey (2000) noted that the evidence of growth in the absence control group comparison in studies of this nature does not provide a strong case for economic impact. It is therefore proposed that future studies in this area should consider introducing control group comparison. With regard to the measurement problems, McMullan et al. (2001) suggested that future research should continue to use and explore a number of different subjective, attribution and objectives variables with different amount of delays between intervention and expected outcomes. The

use of other regression techniques such as Hechman (1997) instrumental variables could also help to strengthen research findings.

As a follow-up to this study, a case study of the management practices of family businesses could also be undertaken in future research in order to provide a better understanding of the reasons why family businesses were more associated with barriers to growth as compared with non-family businesses. Further research could also be undertaken to explore the relationship between the educational qualifications of the owner-managers and the internal resources of the businesses and the innovation activities of the businesses.

Bibliography

Aaker, D. A. (1971), *Multivariate Analysis in Marketing: Theory and Applications,* Belmont: Wadsworth Publishing Company.

Abdullah, M. A. (1999), The accessibility of the government-sponsored support programmes for small and medium-sized enterprises in Penang. *Cities* 16: 83-92.

Abor, J. and Biekpe, N. (2006), How are SMEs financed? Evidence from the Ghanaian non traditional export sector. *Environmental and Planning C: Government and Policy* 24(1): 71-81.

Abor, J. and Biekpe, N. (2006b), SMEs access to debt finance: A comparison of male-owned and female-owned businesses in Ghana. *Entrepreneurship and Innovation* 7(2): 105-112.

Adeboye, T. (1997), Models of innovation and sub-Saharan Africa's development tragedy. *Technology Analysis and Strategic Management* 9 (2): 213-35.

Aduda, K. and Kaane, H. (1999), Technology Policies and Strategies. In: Mullei, A. and Bokea, C. (eds.), *Micro and Small Enterprises in Kenya: Agenda for Improving Policy Environment*, pp. 124-141. Nairobi: International Centre for Economic Growth.

Africa Project Development Facility [APDF] (2002), Business Support Programmes. Accra.

Africa Project Development Facility [APDF] 2004 Annual Report.

Ahuja, G. 2002. Collaboration networks, structural holes and innovation: a longitudinal study. *Administrative Science Quarterly* 45: 425-455.

Aidis, R. (2005), Institutional Barriers to Small- and Medium-Sized Enterprise Operations in Transition Countries. *Small Business Economics* 25: 305-318.

Aldrich, H. and Zimmer, C. (1986), Entrepreneurship through social networks. In D. Sexton and R. Smilor, eds., *The Art and Science of Entrepreneurship.* Cambridge, MA: Ballinger Publishing Co.

Aldrich, H.E. (1999), Organizations *Evolving*, Sage Publications, London.

Almus, M. and Nerlinger, E. A. (1999), Growth of New Technology-Based Firms: Which Factors Matter? *Small Business Economics,* 13 (2): 141-154.

Almus, M. (2000), Testing "Gibrat's Law" for Young Firms- Empirical Results for West Germany. *Small Business Economics,* 15: 1-12.

Almus, M. (2002), What Characterizes a fast growing Firm? *Applied Economics* 34: 1497-1508.

Amonoo, E., Acquah, P.K. and Asmah, E.E. (2003), *The Impact Of Interest Rates On Demand For Credit And Loan Repayment By the Poor And SMEs in Ghana.* IFLIP Research Paper 03-10. International Labour Organisation.

Amponsah, N. (2000), Ghana's Mixed Structure Adjustment Results: Explaining the Poor Private Sector Response. Africa Today, 8-32.

Araujo, L. and Easton, G. (1996), Networks in socio-economic systems: A critical review. In D. Iacobucci, ed., *Networks in Marketing.* Thousand Oaks, CA: Sage Publications.

Ardeshvili, A., Cardozo, S., Harmon, S. and Vadakath, S. (1998), Towards a theory of new venture growth. Paper presented at the *1998 Babson Entrepreneurship Research Conference*, Ghent, Belgium, May 21-23.

Arocena, J. (1984), Le Genie et le carnet d'addresses'. *Autrement* 59 (April): 182-187.

Arrow, K. (2000), Observations in social capital. In P. Dasgupta and I. Serageldin (Eds). *Social Capital: A Multifaceted Perspective.* International Bank for Reconstruction and Development/The World Bank, Washington, D.C.

Aryeetey, E. and Ahene, A. A. (2004), Changing regulatory environment for small and medium-sized enterprises and their performance in Ghana. *Proceedings of the CRC 3rd International Conference on Pro-poor Regulation and Competition: Issues, Policies and Practices,* Cape Town.

Aryeetey, E. and Appiah, E. (1995), *Association of informal producers in Ghana. Report of the study of 6 informal associations in the agro-metal and food processing sub-sectors.* FIT Working Document No. 13, FIT Programme, ILO/TOOL, Geneva/Amsterdam.

Aryeetey, E. and Harrigan, J. (2000), Micro economic and sectorial development since 1970. In: Aryeetey, E., Harrigan, J. and Nissanke, M., (Eds.) *Economic reforms in Ghana: The miracle and mirage*, Ghana edition. pp. 5-31. Oxford: James Currey Limited.

Aryeetey, E., Baah-Nuakoh, A., Duggleby, T., Hettige, H. and Steel, W.F. (1994), *Supply and Demand for Finance of Small-Scale Enterprises in Ghana.* Discussion Paper No.251, Technical Department, Africa Region. Washington D. C.: World Bank.

Asamoa, A. (1996), *Socio-economic development strategies of independent African countries: The Ghanaian experience.* Accra: Ghana Universities Press.

Asamoah, B. (2003), Suspension of Duty Weakens Poultry Industry. *Daily Graphic Business and Finance. 34th ed.* Accra: Daily Graphic.

Asante, Y., Nixson, F. and Tsikata, G.K. (2000), The industrial sector and economic development. In: Aryeetey, E., Harrigan, J. and Nissanke, M., (Eds.) *Economic reforms in Ghana: The miracle and the mirage*, pp. 246-266. Oxford: James Currey.

Audretsch, D. B. (1995) Innovation, growth and survival. *International Journal of Industrial Organisation* 13(4): 441-457.

Audretsch, D. B. and Thurik, A. R. (2004), A Model of the Entrepreneurial Economy. International Journal of Entrepreneurship Education 2 (2):143-166.

Avermaete, T., Viaene, J., Morgan, E. J., and Crawford, N. (2003), Determinants of innovation in small firms. *European Journal of Innovation Management* 6(1): 8-17.

Ayyagari, M., Beck, T. and Demirguc-Kunt, A. (2003) Small and medium enterprise across the globe: A new database. *World Bank Policy Research Working Paper* 3127.

Bank of England (2000), *Finance for Small Businesses in Deprived Communities: A First Report.* London: Domestic Finance Division, Bank of England.

Bank of England (2006), www.bankofengland.co.uk

Bank of Ghana (2005) www.bog.gov.gh/

Barkham, R., Gudgin, G., Hart, M. and Hanvey, E. (1996), *The Determinants of Small Firm Growth: An Inter-Regional Study in the United Kingdom 1986-1990,* London: Jessica Kingsley Publishers.

Barney, J. (1991), Firm Resources and Sustained Competitive Advantage. *Journal of Management* 17(1): 99-120.

Barney, J. B. (1986), Organisational culture: Can it be a source of sustained competitive advantage? *Academy of Management Review* 11: 656- 665.

Barney, J. B. (2001), Is the Resource-Based "View" A Useful Perspective for Strategic Management Resource? Yes. *Academy of Management Review*, 26 (1): 41-56.

Barr, A. (1999), Do SMEs network for growth? In: King, K. and McGrath, S., (Eds.) *Enterprise in Africa between poverty and growth.* Pp.120-131. London: Intermediate Technology.

Barringer, B.R., F.F. Jones and Neubaum, D.O. (2005), A quantitative content analysis of the characteristics of rapid growth firms and their founders, *Journal of Business Venturing* 20 (5): 663-687.

Bartlett, W. and Bukvic, V. (2001), Barriers to SME Growth in Slovenia. MOCT-MOST: Economic Policy in Transitional Economy 11 (2): 177-195.

Baruch, Y. (1999), Response Rate in Academic Studies-A Comparative Analysis. Human Relations 52: 421-438.

Bates, T. (1990), Entrepreneur Human Capital Inputs And Small Business Longevity. *The Review of Economics and Statistics* 72 (4): 551-559.

Bates, T. (2005), Analysis of young, small firms that have closed: delineating successful from unsuccessful closures. *Journal of Business Venturing* 20 (3): 343-358.

Batra, G. and Mahmood, S. (2003), Direct support to private firms: Evidence on effectiveness. *World Bank Policy Research Working Paper 3170.*

Beck, T., Demirguc-Kunt, A. and Levine, R. (2005), SMEs, Growth, and Poverty: Cross-Country Evidence. *Journal of Economic growth* 10: 199-229.

Bennett, R.J. (1998), Business associations and their potential contribution to the competitiveness of SMEs. *Entrepreneurship and Regional Development* 10: 243-260.

Bennett, R. J. and Robson, P.J.A. (1999), The use of external business advice by SMEs in Britain. *Entrepreneurship and Regional Development* 11 (2): 155-180.

Bennett, R. and Robson, P. (2000), The Small Business Service: Business Support, Use, Fees and Satisfaction. *Policy Studies,* 21 (3): 173-190.

Bennett, R. and Robson, P. (2003), External advice and business link. In: Cosh, A. and Hughes, A., (Eds.) *Enterprise challenge: Policy and performance in the British SMEs sector 1999-2002*, Cambridge: ESRC Centre for Business Research, University of Cambridge.

Bennett, R.J. and Robson, P.J.A. (2003b), Changing use of external business advice and government supports by SMEs in the 1990s. *Regional Studies* 37 (8):795-811.

Bennett, R.J. and Smith, C. (2004) The selection and control of management consultants by small business clients. *International Small Business Journal* 22 (5): 435-462.

Bennett, R.J., Robson, P.J.A. and Bratton, W.J.A. (2001), The influence of location on the use by SMEs of external advice and collaboration. *Urban Studies* 38 (8):1531-1557.

Berry, A. J. Sweeting R and Goto, J. (2006), The effect of business advisers on the performance of SMEs. *Journal of Small Business and Enterprise Development* 13 (1) 33-47.

Berry, A., Grant, P. and Jarvis, R. (2003), Can European Banks Plug the Finance Gap for UK SMEs? *ACCA Research Report* (81).

Beyene, A. (2002), Enhancing the competitiveness and the productivity of small and medium scale enterprises (SMEs) in Africa: An analysis of differential roles of National Governments through improved support services. *Africa Developments* XXVII (3):130-156.

Biesebroeck, J. V. (2005), Firm Size Matters: Growth and Productivity in African Manufacturing. *Economic Development and Culture Change* 53(3): 545-583.

Biggs, T. and Srivastava, P. (1996), Structural Aspects of Manufacturing in Sub-Saharan Africa: Findings from a Seven Country Enterprise Survey. *World Bank Discussion Paper No. 346.* Washington, D.C.: World Bank.

Birch, D. (1979), The *Job Generation Process.* MIT Programme on Neighbourhood and Regional Change. Cambridge, Mass.

Birley, S. (1985), The role of networks in the entrepreneurial process. *Journal of Business Venturing* 1:107-117.

Birley, S. and Niktari, N. (1995), The Failure of Owner-managed Businesses: The Diagnosis of Accountants and Bankers. London: ICAEW.

Birley, S., Cromie, S. and Myers, A. (1991), Entrepreneurial networks: their emergence in Ireland and overseas. *International Small Business Journal 9*(4): 56-74.

Blankenburg, D. (1995), A network approach to foreign market entry. In K. Möller and D. Wilson (Eds.) *Business marketing: an interaction and network perspective.* Boston: Kluwer, pp. 375-405.

Bohata, M. and Mladek, J. (1999), The Development of the Czech SME Sector. *Journal of Business Venturing* 14: 461-473.

Bøllington, A. and Ulhøi, J. (2004), The networked business incubator – leveraging entrepreneurial agency? *Journal of Business Venturing,* 20(2), 265-290.

Bolton, J.E. (1971), *Report of the committee of inquiry on small firms*, Cmnd.4811, London: HMSO.

Boter, H. and Lundstrom, A. (2005), SMEs perspectives on business support services: The role of company size, industry, and location. *Journal of Small Business and Enterprise Development* 12 (2): 244-258.

Bothan, R. (2004), New firms, high growth new firms and local economic development: Evidence from Great Britain 1995-2000, Paper presented at *Second Annual Scottish Entrepreneurship Seminar*, Glasgow: University of Strathclyde.

Brautigam, D., Rakner, L. and Taylor, S. (2002), Business associations and growth coalition in Sub-Saharan Africa. *Journal of Modern African Studies* 40 (2):519-547.

Brixy, U. and Kohaut, S. (1999) Employment Growth Determinants in New Firms in Eastern Germany. *Small Business Economics,* 13(2): 155-170.

Brockhaus, R.H. (1982), The psychology of the entrepreneur. In: Kent, C. A., Sexton, D.L., Vesper, K. H. (Eds), *Encyclopaedia of Entrepreneurship.* Englewood Cliff, NJ: Prentice-Hall, pp. 39-56.

Brooksbank, D. (2000), Self-employment and small firms. In: S. Carter and D. Jones-Evans (eds.), *Enterprise and Small Business: Principles, Practice and Policy,* London: Financial Times, Prentice Hall.

Brouwer, E., A. Kleinknecht, A., and Reijnen, J.O.N. (1993), Employment Growth and Innovation at the Firm Level. *Journal of Evolutionary Economics* 3(2): 153-159.

Brown, J. D., Earle, J. S. & Lup, D. (2005), What Makes Small Firms Grow? Finance, Human Capital, Technical Assistance, and the Business Environment in Romania. *Economic Development and Culture Change* 54(1): 33-70.

Brown, T. E., Davidsson, P. and Wiklund, J. (2001), An Operationalisation of Stevenson's Conceptualization of Entrepreneurship as Opportunity-Based Firm Behaviour. *Strategic Management Journal* 22: 953-968.

Brüderl, J. and Preisendörfer, P. (1998), Network support and the success of newly founded businesses. *Small Business Economics* 10: 213-225.

Bryson, J. R., Daniels, P. W. and Ingram, D. R. (1999), Evaluating the impact of Business Link on the performance and profitability of SMEs in the United Kingdom. *Policy Studies* 20: 95-106.

Buame, S.K. (1996), Entrepreneurship: *A contextual perspective, discourses and praxis of entrepreneurial activities within the institutional context of Ghana.* Lund: Lund University Press.

Bullock, A. (2003), Survey Design, Response Bias and Sample Characteristics in the 2002 CBR SME Survey. In: Cosh, A. and Hughes, A (eds.), *Enterprise Challenged: Policy and performance in the British SMEs sector 1999-2002*, Cambridge: ESRC Centre for Business Research, University of Cambridge.

Burke, G.I. and Jarratt, D.G. (2004), The influence of information and advice on competitive strategic definition in small-and-medium sized enterprises. *Qualitative Market Research: An International Journal* 7 (2): 126-138.

Butler, J.E., Brown, B. and Chamornmarn, W. (2003), Informational networks, entrepreneurial action and performance. *Asia Pacific Journal of Management*, 20: 151-174.

Butler, P. and Durkin, M. (1998), Relationship intermediaries: business advisors in the small firm-bank relationship. *International Journal of Bank Marketing* 16(1): 32-38.

Cabral, L. M. B. and Mata, J. (2003), On the Evolution of the Firm Size Distribution: Facts and Theory. *The American Economy Review* 93(4): 1075-1090.

Calvo, J. L. (2006) Testing Gibrat's Law for Small, Young and Innovating Firms. *Small Business Economics* 26: 117-123.

Cannon, T. (1990), The small firm's route to profits and performance. In: Woodcock, C., (Ed.) *The Guardian guide to running a small business*, 7 edn. pp. 143-169. London: The Chaucer Press.

Carney, D. (1998), *Sustainable rural livelihoods, What contribution can we make?* London: DFID.

Carrier, C. (1999), The Training and Development Needs of Owner-Managers of Small Businesses with Export Potential. *Journal of Small Business Management* 37 (4): 30-40.

Carsrud, A. L. and Johnson, R. W. (1989), Entrepreneurship: a social psychological perspective. *Entrepreneurship and Regional Development* 1(1): 21-31.

Carter, S., Tagg, S., and Webb, J. (2002), *Lifting the Barriers to Growth in UK Small Businesses.* Report to the Federation of Small Businesses.

Chandler, G. N. and Lyon, D. W. (2001), Issues of Research Design and Construct Measurement in Entrepreneurship Research: The Past Decade. Entrepreneurship Theory and Practice 25: 101-113.

Chell, E. and Baines, S. (2000) Networking, entrepreneurship and micro business behaviour. *Entrepreneurship and Regional Development* 12: 195-215.

Chesher, A. (1979), Testing The Law of Proportionate Effect. *The Journal of Industrial Economics* XXVII: 403-411.

Chipika, S. and Wilson, G. (2006), Enabling technological learning among light engineering SMEs in Zimbabwe through networking. *Technovation* 26(8): 969-979.

Chrisman, J.J. and McMullan, W. D. (2004), Outsider Assistance as a Knowledge Resource for New Venture Survival. *Journal of Small Business Management* 42 (3): 229-244.

Cliff, J. E. (1998), Does one size fit all? Exploring the relationship between attitudes towards growth, gender, and business size. *Journal of Business Venturing,* 13: 523-542.

Conner, K. R. (1991), A Historical Comparison of Resource-BASED Theory and Five Schools of Thought with Industrial Organisation Economics: Do We Have a New Theory of the Firm? *Journal of Management* 17: 121-154.

Conner, K. R. and Prahalad, C. K. (1996), A Resource-Based Theory of the Firm: Knowledge versus Opportunism. *Organization Science,* 7(5): 477-501.

Cooke, P. and Wills, D. (1999), Small Firms, Social Capital and Enhancement of Business Performance through Innovation Programme. *Small Business Economics* 13 (3): 219-234.

Cosh, A. and Hughes, A. (2003) Size, Age, Growth, Business Constraints and Management Characteristics. In: Cosh, A. and Hughes, A., (Eds.) *Enterprise challenge: Policy and performance in the British SMEs sector 1999-2002*, Cambridge: ESRC Centre for Business Research, University of Cambridge.

Cosh, A., Hughes, A. and Weeks, M. (2000), *The Relationship Between Training and Employment Growth in Small and Medium-sized Enterprises*, DfEE Research Report No. 245. Norwich: HMSO.

Cosh, A., Hughes, A., Bullock, A. and Patton, M. (2002) *The relationship between training and business performance*. Cambridge: Centre for Business Research, University of Cambridge.

Cowan, D.A. (1990), Developing a classification structure of organisation problems: empirical investigations. *Academy of Management Journal* 33 (12):366-390.

Cragg, P.B. and King, M. (1988), Organisation Characteristics and Small Firm's Performance Revisited. *Entrepreneurship Theory and Practice* 13(2): 48-64.

Cressy, R. and Storey, D.J. (1995), *New firms and their Banks*. London: National Westminster Bank.

Curran, J. & Blackburn, R. (2000), Panacea or White Elephant? A Critical Examination of the Proposed New Small Business Service and Response to the DTI Consultancy Paper. *Regional Studies*, 34 (2): 181-189.

Curran, J. and Blackburn, R.A. (2001), *Researching the small enterprise*. London: Sage Publication.

Curran, J. and Storey, D.J. (2002), Small business policy in the United Kingdom: the inheritance of the Small Business Service and implications for its future effectiveness. *Environment and Planning C: Government and Policy* 20: 163-177.

Curran, J., Blackburn, R., Kitching, J. and North, J. (1997) Small firms and workforce training: some results, analysis and policy implications from a national survey. In Ram, M., Deakins, D. & Smallbone, D. (Eds.) *Small firms enterprising futures*. London, Institute of Small Business Affairs.

Curwin, J. & Slater, R. (2002), *Quantitative Methods for Business Decisions*. London: THOMSON LEARNING.

Dana, L. (2000), Networks, internationalisation and policy: introduction to the special issue dedicated to networks, opportunity, internationalisation and policy. *Small Business Economics* 16: 57-62.

Davidsson, P. (1991), Continued entrepreneurship: Ability, need, and opportunity as determinants of small firm growth. *Journal of Business Venturing* 6: 405-429.

Davidsson, P. (2004) *Researching Entrepreneurship.* New York: Springer.

Davidsson, P. and Henrekson, M. (2002), Determinants of the Prevalence of Start-ups and High-Growth Firms. Small Business Economics 19 (2): 81-104.

Davidsson, P. and Klofsten, M. (2003), The Business Platform: Developing an Instrument to Gauge and to Assist the Development of Young Firms. *Journal of Small Business Management* 41(1): 1-26.

Davidsson, P. and Wiklund, J. (1999), Theoretical And Methodological Issues In The Study Of Firm Growth. Jönköping International Business School.

Davidsson, P., Kirchhoff, B., Hatemi-J, A. and Gustavsson, H. (2000), *Factors underlying business growth in Sweden.* A Presentation at ICSB World Conference, June7-10, 2000, Brisbane.
Davidsson, P., Kirchhoff, B., Hatemi-J, A. and Gustavsson, H. (2002), Empirical Analysis of Business Growth Factors Using Swedish Data. *Journal of Small Business Management,* 40: 332-349.

Dawes, F. (1999), *Small Business Management: An Overview.* Dublin: Blackhall Publishing.

Dawson, J. (1997), Beyond credit- the emergence of high-impact, cost-effective business development services. *Small Enterprise Development* 8 (3): 15-25.

Dawson, J. and Jeans, A. (1997), *Looking beyond credit: Business development services and the promotion of innovation among small producers.* London: Intermediate Technology Publication.

De Chiara, A. and Minguzzi, A. (2002), Success factors in SMEs internationalisation process: an Italian investigation. *Journal of Small Business Management* 40 (2):144-153.

De Jong, J.P.J. and Marsili, O. (2006), The Fruit Fliers of Innovations: A Taxonomy of Innovative Small Firms. *Research Policy* 35(2): 213-229.

De Soto, H. (2000), *The mystery of capital: Why capitalism triumphs in the West and fails everywhere else.* New York: Basic Books.

Deakins, D. and Whittam, S. (2000), Business start-up: Theory, practice and policy. In: Carter, S. and Jones-Evans (Eds), *Enterprise and Small Business,* pp 115-131. London: Pearson Education.

Delmar, F., Davidsson, P., and Gartner, W. B. (2003), Arriving at the high-growth firm. Journal of Business Venturing 18 (2): 189-216.

Devins, D. and Johnson, S. (2003), Training and development activities in SMEs: Some findings from an evaluation of the ESF Objective 4 Programme in Britain. *International Small Business Journal* 21 (2): 213-228.

Dia, M. (1996), *Africa's management in the 1990s and beyond, reconciling indigenous and transplanted institutions*. The World Bank: Washington, D.C.

Dijk, M. P. van (1997), Small Enterprise Associations and Networks: Evidence from Accra. In: Dijk, M. P. van and Rabellotti, R., (Eds) *Enterprise Clusters and Networks in Developing Countries*, EADI Books Series 20, pp131-154. London: Frank Cass & Co. Ltd.

Dogel, G. (2001), An Analysis of Entrepreneurial Environment and Enterprise Development in Hungary. *Journal of Small Business Management* 39 (1): 103-109.

Doggett, P. and Hepple, L.W. (1995), *Corporate Banking Survey 1995-England, Wales, Scotland, and Northern Ireland.* London: Mees Pierson NV.

Donckels, R. and Lambrecht, J. (1995), Networks and small business growth: an explanatory model. *Small Business Economics* 7: 273-289.

Donckels, R. and Lambrecht, J. (1997), The network position of small businesses: an explanatory model. *Journal of Small Business Management* 35(2): 13-25.

Dondo, C. A. (1998), The dynamics of informal sector in Kenya. Paper presented in Enterprise in Africa Conference, The University of Edinburgh.

Dordunoo, C.K. and Nyanteng, V.K. (1997), Overview of the Ghanaian economic development. In: Nyanteng, V.K., (Ed.) *Policies and options for Ghanaian economic development*, pp. 1-22. Legon: Institute of Statistical, Social and Economic Research.

Downs, A. (1967), *Inside Bureaucracy.* Boston: Little, Brown.

Drucker, P.F. (1994), *Innovation and entrepreneurship.* Revised edition, Oxford: Butterworth Heinemann.

Du Rietz, A. and Henrekson, M. (2000), Testing the female underperformance hypothesis. *Small Business Economics* 14(1): 1-10.

Dubini, P. and Aldrich, H.E. (1991), Personal and extended networks are central to the entrepreneurial process. *Journal of Business Venturing* 6: 305-313.

Dunsby, B. (2001), Business Mentoring Guidance for Growing SMEs. In: UNCTAD, *Improving the Competitiveness of SMEs in Developing Countries: The Role of Finance to Enhance Enterprise Development*, pp. 133-139. Geneva: UNCTAD.

Easterby-Smith, M., Thorpe, R. and Lowe, A. (2002), Research Management: An introduction, (2nd ed.). London: SAGE Publications.

Easton, G., Araujo, L. (1986), Networks, bonding and relationships in industrial markets. Industrial Marketing and Purchasing, 1(1): 8-25.

Economic Commission for Africa [ECA] (2004), *Unlocking Africa's trade potential.* Addis Ababa: ECA Publications Clusters.

Elfring, T. and Hulsink, W. (2003), Networks in entrepreneurship: the case of high-technology firms. *Small Business Economics* 21: 409-422.

Elkan, W. (1988), *Entrepreneurs and Entrepreneurship in Africa.* IBRD/World Bank Research Observer 3 (2).

Ellis, D. S. and Jolibert (1991), *The role of marketing in the survival of small industrial firms in a developing region.* Research Symposium on the Marketing /Entrepreneurship Interface, San Diego, 303-332.

Ernst and Young (1997), Development of Business Incubators in Ghana. Accra: Ernst & Young.

European Commission (2002), *Report on support services for micro, small, and sole proprietor's businesses.* Austria: Austrian Institute for Small Business Research.

Evans, D. S. (1987), The relationship between Firm Growth, Size, and Age: Estimates for 100 Manufacturing Industries. *The Journal of Industrial Economics, 35 (4):567-581.*

Frazer, G. (2005), Which firms die: A look at manufacturing firm exit in Ghana. *Economic Development and Cultural Change* 53 (3):585-617.

Fraser, S., Storey, D., Frankish, J. and Roberts, R. (2002), The relationship between training and small business performance: an analysis of the Barclays Bank Small Firm Training Loans Scheme. *Environmental and Planning C: Government and Policy* 20(2): 211-233.

Freel, M. (2000), External linkages and product innovation in small manufacturing firms. *Entrepreneurship and Regional Development* 12: 245-266.

Freel, M. (2005), The characteristics of innovation-intensive small firms: Evidence from "Northern Britain". *Journal of Innovative Management* 9 (4): 401-429.

Freel, M. S. and Robson, P.J.A. (2004), Small Firm Innovation, Growth and Performance: Evidence from Scotland and Northern England. *International Small Business Journal* 22(6): 561-575.

Freeman, C. and Soete, L. (1997), The economics of industrial innovation, 3rd London: Pinter.

Ganugi, P., Grossi, L. and Gozzi, G. (2005), Testing Gibrat't law in the Italian macro-regions: analysis on a panel of mechanical companies. *Statistical Methods & Applications* 14: 101-126.

Garnsey, E. (1998), A Theory of the Early Growth of the Firm. *Industrial and Corporate Change* 7: 523-556.

Gartner, W. B. and Birley, S. (2002), Introduction to the special issue on qualitative methods in entrepreneurship research. *Journal of Business Venturing* 17: 387-395.

Gartner, W.B. (1988), Who is an entrepreneur? Is the wrong question. *American Journal of Small Business* Spring 12: 11-32.

Getz, D. and Petersen, T. (2005), Growth and profit-oriented entrepreneurship among family business owners in the tourism and hospitality industry. *International Journal of Hospitality Management* 24: 219-242.

Ghana National Industrial Census (1989), *Ghana National Industrial Census 1987: Phase One Report, Background and Results*, Accra: Ghana: Statistical Service.

Ghana Statistical Service (2000), Ghana Living Standard Survey. Accra: Ghana Statistical Service.
Ghana Statistical Service (2006), 2003 National Industrial Census: Background and Results. Accra: Ghana Statistical Service.

Ghanaweb (2005), Business News, 20th July Edition (www.ghanaweb.com).

Gibson, A. (1999), Empretec Ghana Foundation: a broad product portfolio organisation. *Small Enterprise Development* 10 (2):30-40.

Gill, J. & Johnson, P. (1991), *Research Methods For Managers,* London, Paul Chapman Publishing Ltd.
Gooderham, P.N., Tobiasson, A., Doving, E. and Nordhaug, O. (2004), Accountants as sources of business advice for small firms. *International Small Business Journal* 22 (1):5-22.

Gorman, G., Hanlon, D. and King, W. (1997), Some research perspectives on entrepreneurship education for small business management: A ten-year literature review. *International Small Business Journal* 15 (3): 56-77.

Government of Ghana (2002), Ghana Poverty Reduction Strategy (GPRS) Report 2002, Accra.

Grandi, A. and Grimaldi, R. (2002), Exploring the networking characteristics of new venture founding teams. *Small Business Economics* 21: 329-341.

Granovetter, M. (1992), Problems of explanation in economic sociology. In: Nohria, N. and Eccles, R. (Eds.), *Networks and Organizations: Structure, Form and Action.* Harvard: Harvard Business School Press.

Grant, P. and Perren, L. (2002), Small Business and Entrepreneurial Research: Meta-theories, Paradigms and Prejudices. International Small Business Journal 20 (2): 185-211.

Greve, A. and Salaff, J. (2003), Social networks and entrepreneurship. *Entrepreneurship: Theory and Practice* 28(1): 1-22.

Gunasekaran, A.,Folker, L. and Kobu, B. (2000), Improving Operations Performance in a Small Company: a Case Study. *International Journal of Operations & Production Management* 20 (3): 1-14.

Gundry, L. K. & Welsch, H. P. (2001) The ambitious entrepreneur: High growth strategies of women-owned enterprises. *Journal of Business Venturing,* 16(5): 453-470.

Haan, H.C. (1999), MSE associations and enterprise promotion in Africa. In: King, K. and McGrath, S., (Eds.) *Enterprise in Africa: Between poverty and growth*, pp. 156-168. London: Intermediate Technology.

Hadjimanolis, A. (2000), An investigation of innovation antecedents in small firms in the context of a small developing country. *R&D Management* 30 (3): 235-245.

Halinen, A., Salmi, A. and Havila, V. (1999), From dyadic change to changing business networks: an analytical framework. *Journal of Management Studies* 36(6): 779-794.

Hall, B. H. (1987), The Relationship Between Firm Size and Firm Growth in the US Manufacturing Sector. *The Journal Industrial Economics* 35 (4): 583-606.

Hall, G. (1995) Surviving and Prospering in the Small Firm Sector. London: Routledge.

Hallberg, K. (2000), A Market -Oriented Strategy for Small and Medium-Scale Enterprises. *IFC Discussion Paper Number 40,* The World Bank, Washington D. C.

Hallénen, L. (1992), Infrastructural networks in international business. In: Forsgren, M. and Hohanson, J. (Eds.) *Managing networks in international business.* Philadelphia: Gordon & Breach, pp. 77-92.

Handler, W. C. (1989), Methodological issues and considerations in studying family businesses. *Family Business Review* 2(3): 257-276.

Hansen, E.L. (1995), Entrepreneurial networks and new organisation growth. *Entrepreneurship Theory and Practice* 19(4): 7-19.

Harland, C.M. (1995), *Networks and globalisation: A review of research*, EPSRC Final Report. Grant No. GRK53178.

Harper, M. and Soon, T.T. (1979), *Small enterprises in developing countries: Case studies and conclusions.* London: IT Publications.

Harrison, B. (1997), *Lean and Mean.* New York: Gilford.

Hart, P. E. and Oulton, N. (1996), Growth and Size of the Firms. *The Economic Journal* 106 (438): 1242-1252.

Hausman, A. (2005), Innovativeness among small businesses: Theory and propositions for the future. *Industrial Marketing Management* 34: 773-782.

Havnes, P. and Senneseth, K. (2001), A panel study of firm growth among SMEs in networks. *Small Business Economics* 16: 293-302.

Headd, B. (2003), Redefining business success: Distinguishing between closure and failure. *Small Business Economics* 21: 51-61.

Heckman, J (1997) Instrumental Variables: A Study of Implicit Behavioural Assumptions Used in the Making Programme Evaluations. *The Journal of Human Resources* 32 (3): 441-462.

Henderson, R., Sutherland, J. and Turley, S. (2000), Management Development in Small Business: A Sub-regional Examination of Practice, Expectation and Experience. *Regional Studies* 34 (1): 81-86.

Henry, C., Hill, F.M. and Leitch, C.M. (2004), The Effectiveness of Training for New Business Creation: A longitudinal Study. *International Small Business Journal* 22 (3): 249-271.

Heshmati, A. (2001), On the Growth of Micro and Small Firms: Evidence from Sweden. *Small Business Economics* 17(3): 213-228.

Hill, J. and McGowan, P. (1999), Small business and enterprise development: questions about research methodology. *International Journal of Entrepreneurship Behaviour & Research* 5 (1): 5-18.

Hill, J., McGowan, P., and Drummond, P. (1999), The development and application of a qualitative approach to researching the marketing networks of small firm entrepreneurs. *Qualitative Market Research: An International Journal* 2(2): 71-81.

Hite, J.M. (2005), Evolutionary processes and paths of relationally embedded network ties in emerging entrepreneurial firms. *Entrepreneurship: Theory and Practice*, 29(1): 113-144.

Hjalmarsson, D. and Johansson, A.W. (2003), Public advisory services- theory and practice. *Entrepreneurship and Regional Development* 15: 83-98.

Hoang, H. and Antoncic, B. (2003), Network-based research in entrepreneurship: a critical review. *Journal of Business Venturing*, 18(2): 165-187.

Honig, B. (1998), What determines success? Examining the human, financial, and social capital of Jamaican micro entrepreneurs. *Journal of Business Venturing* 13: 371-394.

Hoogstra, G. J. & Van Dijk, J. (2004), Explaining Firm Employment Growth: Does Location Matter? *Small Business Economics,* 22(3-4): 179-192.

Hsueh, L.-M. & Tu, Y.-Y. (2004), Innovation and the Operational Performance of Newly Established Small and Medium Enterprises in Taiwan. *Small Business Economics,* 23, 99-113.

Huang, X. and Brown, A. (1999), An Analysis and Classification of Problems in Small Business, *International Small Business Journal* 18 (1): 53-85.

Huggins, R. (2000), The success and failure of policy-implanted inter-firm network initiatives: Motivations, processes and structure. *Entrepreneurship and Regional Development* 12: 111-135.

Hussey, J. and Hussey, R. (1997), Business Research: A practical guide for undergraduate and postgraduate students. New York: Palgrave.

Hyytinen, A. and Toivanen, O. (2005), Do financial constraints hold back innovation and growth? Evidence on the role of public policy. *Research Policy* 34: 1385-1403.

Ibeh, K. I. N. (2003), On the internal drivers of export performance among Nigerian firms: empirical findings and implication. *Management Decision* 41 (3): 217-225.

Ibrahim, A. B., Soufani, K. and Lam, J. (2003), Family Business Training: a Canadian perspective. *Education and Training* 45 (8/9): 474-482.

IFAD/Republic of Ghana Rural Enterprise Project (2000), Interim Evaluation Report No.1097.

Institute of Statistical, Social and Economic Research (ISSER) (2001), *The State of the Ghanaian Economy in 2000.* University of Ghana, Legon.

Institute of Statistical, Social and Economic Research (ISSER) (2002), *The State of the Ghanaian Economy in 2001.* University of Ghana, Legon.

Institute of Statistical, Social and Economic Research (ISSER) (2003), *The State of the Ghanaian Economy in 2002.* University of Ghana, Legon.

Institute of Statistical, Social and Economic Research (ISSER) (2004), *The State of the Ghanaian Economy in 2003.* University of Ghana, Legon.

Isenberg (1984), How senior managers think. *Computerworld* 18 (50): 23-26.

Jack, S. (2005), The role, use and activation of strong and weak ties: a qualitative analysis. *Journal of Management Studies* 42(6): 1233-1259.

Jack, S.L. (2002), The role and nature of networking in the entrepreneurial process. PhD Dissertation, University of Aberdeen.

Jack, S.L. and Anderson, A.R. (2002), The effects of embeddedness on the entrepreneurial process. *Journal of Business Venturing* 17(5): 467-487.

Jackson, P. (2002), Business *Development in Asia and Africa: The Role of Government Agencies.* New York: Palgrave Publishers.

Jaffe, A.B. (1989), Real Effects of Academic Research. *American Economic Review*, 79(5): 957-969.

Jarvis, R. (2000), Finance and the small firm. In: Carter, S. and Jones-Evans, D. (eds.), *Enterprise and small business: Principles, practice and policy*, London: Financial Times, Prentice Hall.

Jay, L. and Schaper M. (2003), Which advisers do micro-firms use? Some Australian evidence. *Journal of Small Business and Enterprise Development* 10 (2): 136-143.

Johannisson, B. (1986), Network strategies: management technology for entrepreneurship and change. *International Small Business Journal* 5(1): 19-30.

Johannisson, B. (1987), Entrepreneurship and creativity: on dynamic environments for small business. In *Reports of the University of Växjö,* series 1, *Economics and Politics*, no. 7.

Johannisson, B. (1990), Economies of overview: Guiding the external growth of small firms. *International Small Business Journal* 9(1): 32-44.

Johannisson, B. (2000), Networking and entrepreneurial growth. In: Sexton, D. L. and Landström, H. (Eds), *Handbook of Entrepreneurship.* Oxford: Blackwell Publishers, Limited.

Johannisson, B. and Nilsson, A. (1989), Community entrepreneurs: Networking for local development. *Entrepreneurship and Regional Development* 1(1): 3-19.

Johannisson, B., Alexanderson, O., Nowicki, K. and Senneseth, K. (1994), Beyond anarchy and organization: Entrepreneurs in contextual networks. *Entrepreneurship and Regional Development* 6(3): 329-356.

Johanson, J. and Mattsson, L.G. (1988), Internationalisation in industrial systems – a network approach. In: Hood, N and Vahlne, J. E. (Eds.) *Strategies in global competition.* New York: Croom Helm, pp. 287-314.

Johanson, J. and Vahlne, J.E. (1990), The mechanism of internationalisation. *International Marketing Review* 7(4): 11-24.

Johnson, S., Sear, L. and Jenkins, A. (2000), Small-business policy, support and governance. In: Carter, S. and Jones-Evans, D., (Eds.) *Enterprise and small business: Principles, practice and policy*, pp. 48-77. Essex: Pearson Education Ltd.

Johnson, S., Thomas, W. and Webber, D.J. (2004), *Who uses External Business Advice? A Multivariate Probit Analysis with Sector Effect.* Mimeo Policy Research Institute, Leeds Metropolitan University.

Jones, C., Hesterly, W. and Borgatti, S. (1997), A general theory of network governance: exchange conditions and social mechanisms. *Academy of Management Review* 22(4): 911-946.

Jones, J. (2004), Training and Development, and Business Growth: A Study of Australian Manufacturing Small-Medium Sized Enterprises. *Asia Pacific Journal of Human Resources* 42 (1): 96-121.

Jovanovic, B. (1982), Selection and the Evolution of Industry. *Econometrica* 50(3): 649-670.

Julien, P.A. (1998), *The state of the art in small business and entrepreneurship.* England: Ashgate Publishing Limited.

Kailer, N. (1990), Further Training In Small and Medium-Sized Enterprises (Austria). *Journal of Small Business Management,* 28: 60-63.

Kapila, S. and Mead, D. (2002), *Building Businesses with Small Producers.* Ottawa: ITDG Publishing.

Karamanos, A. (2003), Complexity, identity and the value of knowledge-intensive exchanges. *Journal of Management Studies* 40(7): 1871-1890.

Karlsson, C. and Olsson, O. (1998), Product innovation in small and large enterprises. *Small Business Economics* 10: 31-46.

Kasekende, L. (2001), Financing SMEs: Uganda's Experience. In: UNCTAD (Ed.) *Improving the competitiveness of SMEs in developing countries: The role of finance to enhance enterprise development*, pp. 97-108. New York: United Nation.

Kazanjian, R.K. (1988), Relation of Dominant Problems to Stages of Growth in Technology based New Ventures. *Academy of Management Journal* 31, 257-279.

Keeble, D. (2003), British SMEs in the 21st Century: North-South and Urban -rural variations in performance and growth. In: Cosh, A. and Hughes, A., (Eds.) *Enterprise challenge: Policy and performance in the British SMEs sector 1999-2002*, Cambridge: ESRC Centre for Business Research, University of Cambridge.

Kets de Vries, M. (1996), *Family Business.* London: International Thomson.

Kiggundu, M.N. (2002), Entrepreneurs and Entrepreneurship in Africa: What is Known and What Needs to be Done. *Journal of Developmental Entrepreneurship* 7 (3): 239-258.

Kim, L. and Nugent, J.B. (1994), The Republic of Korea's Small and Medium-Size Enterprises and Their Support Systems. *The World Bank, Policy Research Working Paper.*

Kim, P.H., Aldrich, H.E. 2005. Social capital and entrepreneurship. *Foundations and Trends in Entrepreneurship*, 1(2).

King, K. and McGrath, S. (Eds) (1999), Enterprise *in Africa: Between Poverty and Growth.* London: Intermediate Technology Publications.

Kirby, D. A. and King, S. H. (1997), Accountants and Small Firms Development: Filling the Expectation gap. *The Service Industries Journal* 17 (2): 294-304.

Kirby, D.A. (1990), Management education and small business development: An exploratory study of small firms in the UK. *Journal of Small Business Management* 28 (4): 78-87.

Kitching, B and Woldie, A. (2004), Female Entrepreneurs in Transitional Economies: a comparative study of Businesswomen in Nigeria and China. In *proceedings Hawaii International Conference on Business.* Honolulu, Hawaii.

Kitson, M. and Wilkinson, F. (2003) The State of Competitiveness. IN Cosh, A. & Hughes, A. (Eds.) *Enterprise Challenged: Policy and Performance in the British SME Sector 1999-2002.* Cambridge, ESRC Centre for Business Research, University of Cambridge.

Kleinknecht, A., Mohnen, P., (Eds) (2002), *Innovation and Firm Performance. Econometric Explorations of Survey Data.* New York: Palgrave.

Kodithuwakku, S. and Rosa, P. (2002), The entrepreneurial process and economic success in a constrained environment. *Journal of Business Venturing* 17 (5): 431-465.

Kotey, B. (2005), Goals, management practices, and performance of family SMEs. *International Journal of Entrepreneurial Behaviour and Research* 11 (1): 3-24.

Lall, S. (1995), Structural Adjustments and African Industry. *World Development* 23 (12): 2013-2019.

Lambrecht, J. and Pirnay, F. (2005), An evaluation of public support measures for private external consultancies to SMEs in the Walloon Region of Belgium. *Entrepreneurship and Regional Development* 17: 89-108.

Larson, A. and Starr, J.A. (1993), A network model of organization formation. *Entrepreneurship Theory and Practice,* Winter, 5-15.

Lee, D. Y. and Tsang, E. W. K. (2001) The Effect of Entrepreneurial Personality, Background and Network Activities on Venture Growth. *Journal of Management Studies*, 38 (4): 583-602.

Leonidou, L.C. (2004), An analysis of barriers hindering small business export development. *Journal of Small Business Management* 42 (3): 279-302.

Leonidou, L.C. and Adams-Florou, A.S. (1999), Types and sources of export information: Insights from Small Businesses. *International Small Business Journal* 17 (3):30-48.

Liedholm, C. (1994), Rural Microenterprise Employment Growth in Africa. *American Journal of Agricultural Economics* 76 (5): 1177-1182.

Liedholm, C. (2002), Small firm dynamics: Evidence from Africa and Latin America. *Small Business Economics* 18 (1-3): 227-242.

Liedholm, C., McPherson, M., and Chuta, E. (1994), Small Enterprise Employment Growth in Rural Africa. *American Journal of Agricultural Economics*, 76 (5) 1177-1182.

Lippman, S.A. and Rumelt, R. P. (1982), Uncertain Imitability: An analysis of Inter-firm Differences in Efficiency under Competition. *The Bell Journal of Economics* 13 (2): 418-438.

Littunen, H. (2000), Networks and local environmental characteristics in the survival of new firms. *Small Business Economics* 15: 59-71.

Littunen, H. and Tohmo, T. (2003), The High Growth in New Metal-Based Manufacturing and Business Service Firms in Finland. *Small Business Economics* 21(2): 187-200.

Lofsten, H. & Lindelof, P. (2003), Determinants for an entrepreneurial milieu: Science Parks and business policy in growing firms. *Technovation* 23: 51-64.

Lynch, M. M. and Young-Gyampo, K. (1998), *Enterprise Support Services for Africa Project* (Unpublished).

MacCallum, R. C. and Austin, J T. (2000) Applications of Structural Equation Modeling in Psychological Research. *Annual Review of Psychology* 51: 201-226.

Mahemba, C.M. and De Bruijn, E.J. (2003), Innovation Activities by Small and Medium-sized Manufacturing Enterprises in Tanzania. *Creativity and Innovation Management* 12 (3): 162-173.

Malecki, E.J. (1997), *Technology and economic development: The dynamics of local, regional and national competitiveness.* Second edn, Essex: Longman.

Malecki, E.J. and Poehling, R.M. (1999), Extroverts and Introverts: small manufactures and their information sources. *Entrepreneurship and Regional Development* 11 (3): 247-268.

Mambula, C. (2002), Perceptions of SME Growth Constraints in Nigeria. *Journal of Small Business Management* 40: 58-65.

Mambula, C.J. (2004), Relating external support, business growth and creating strategies for survival: A comparative case study analyses of small manufacturing firms (SMFs) and entrepreneurs. *Small Business Economics* 22 (2): 83-109.

Manolova, T.S., Brush, C.D., Edelman, L.F. and Green, P.G. (2002), Internationalisation of small businesses: Personal factors revisited. *International Small Business Journal* 20 (1): 9-31.

Manu, G. (1999), Enterprise development in Africa: strategies for impact and growth. In: King, K. and McGrath, S., (Eds.) *Enterprise in Africa between poverty and growth.* pp. 107-120. London: Intermediate Technology.

Manuh, G. (2003), Twenty Years of Small Enterprise Development. *UNCTAD Empretec Newsletter* 4-5.

Manuh, G.B. (1988), Extension Services for Small Scale Enterprise Development in Developing Countries: A study with particular emphases on Ghana. PhD Dissertation, Durham: University of Durham.

Marsden, K. (1990), *African Entrepreneurs: Pioneers of Development.* International Finance Corporation (IFC) Discussion Paper IFD-9.

Massey, C. (2003), Enterprise assistance: response from the public and private sectors. *Journal of Small Business and Enterprise Development* 10 (2):128-135.

Mbugua, T. (1999), Markets and Marketing. In: Mullei, A. and .Bokea, C., (Ed.) Micro *and small enterprises in Kenya: Agenda for improving policy environment*, pp. 107-128. Nairobi: International Centre for Economic Growth.

McCormick, D. (1999), Enterprise clusters in Africa: Linkages for growth and development. In: King, K. and McGrath, S., (Eds.) Enterprise *in Africa: Between growth and poverty*, pp. 132-168. London: Intermediate Technology.

McCormick, D., Kinyanjui, M. N. and Ongile, G. (1997), Growth and Barriers to Growth Among Nairobi's Small and Medium Sized Garment Producers. *World Development* 25 (7): 1095-1110.

McDade, B.E. and Spring, A. (2005) The 'new generation of African entrepreneurs': networking to change the climate for business and private sector-led development. *Entrepreneurship and Regional Development* 17(1): 17-42.

McDonald, R P and Ho, M R (2002) Principles and Practice in Reporting Structural Equation Analyses. *Psychological Methods* 7(1): 64-82.

McGrath, S. and King, K. (1995), *Education and Training for the Informal Sector.* Overseas Development Administration Vol. 1 Serial No. 11.

McGrath, S. and King, K. (1999), Learning to grow? The importance of education and training for small and micro-enterprise development. In: King, K. and McGrath, S., (Eds.) Enterprise *in Africa: Between growth and poverty*, pp. 211-222. London: Intermediate Technology.

McKenzie, J. (1990), Small business promotion in Africa's Sahel countries. *Small Enterprise Development* 1 (4):46-53.

McMullan, E., Chrisman, J. J. and Vesper, K. (2001), Some Problems in Using Subjective Measures of Effectiveness to Evaluate Entrepreneurial Assistance Programs. *Entrepreneurship Theory and Practice* 26 (1): 37-54.

McPherson M. A. (1996), Growth of micro and small enterprises in southern Africa. *Journal of Development Economics* 48 (2): 253-277.

Mead, C.D. and Liedholm, C. (1998), The Dynamics of Micro and Small Enterprises in Developing Countries. *World Development* 26 (1):61-74.

Mensah, J. V. (2005), Small-scale industry as a sponge? An empirical survey in the Central Region, Ghana. *Singapore Journal of Tropical Geography* 26 (2): 212-226.

Ministry of Finance (2002), Ghana Integrated for Industrial Policy for Increased Competitiveness Part III, Accra.

Ministry of Finance and Economic Planning (1964), Ghana Seven-Year Development Plan 1963/64 to 1969/70. Accra

Ministry of Finance and Economic Planning (1977), Ghana Five-Year Development Plan 1975/76 to 1979/80, Accra.

Mkandawire, T. (1999), Developmental states and small enterprises. In: King, K. and McGrath, S., (Eds.) Enterprise *in Africa: Between poverty and growth*, pp. 33-60. London: Intermediate Technology.

Mole, K. (2000), Gambling for growth or settling for survival: The dilemma of small business adviser. *Journal of Small Business and Enterprise Development* 7(4): 305-314.

Mole, K. (2002), Business advisers' impact on SMEs: An agency theory approach. *International Small Business Journal* 20 (2):139-162.

Mole, K. (2002b), Street-level technocracy in the UK small business support: Business Links, personal business advisers, and the Small Business Service. *Environmental and Planning C: Government and Policy*, 20, 179-194.

Mønsted, M. (1995), Processes and structures of networks: Reflections on methodology. *Entrepreneurship and Regional Development* 7: 193-213.

MORI (1994), *'Business Links': The business advice market among small and medium-sized enterprises.* London: Department of Trade and Industry.

Morris, M. H., Miyasaki, N. N., Watters, C. E. and Coombes, S. M. (2006), The Dilemma of Growth: Understanding Venture Size Choices of Women Entrepreneurs. *Journal of Small Business Management,* 44, 221-244.

Morris, M. H., Williams, R.O., Allen, J. A. and Avila, R. A. (1997), Correlates Of Success In Family Business Transitions. *Journal of Business Venturing* 12: 385-402.

Morris, M.H., Jones, P. and Nel, D. (1997), The informal sector, entrepreneurship, and economic development. *Journal of Development Entrepreneurship* 2 (2):83-99.

Moy, J.W. and Luk, V.W.M. (2003), The Life Cycle Model as a Framework for Understanding Barriers to SME Growth in Hong Kong. *Asia Pacific Business Review* 10: 199-220.

Mukhtar, S. (2002), Differences in Male and Female Management Characteristics: A Study of Owner-manager Businesses. *Small Business Economics* 18 (4) 289-310.

Murinde, V. and Woldie, A. (2003), African Business Finance and Development Policy. New York: The Haworth Press.

Murphy, G. B. (2002), The effects of organizational sampling frame selection. *Journal of Business Venturing,* 17 (3): 237-252.

Murphy, J.T. (2002), Networks, trust, and innovation in Tanzania manufacturing sector. *World Development* 30 (4): 591-619.

Nam, Y.H. (2000), The role of incubator organizations in hi-tech venture creation in Korea. *Asia Pacific Journal of Management* 17: 277-296.

NBSSI (2002) Executive Directors perspective: Overview of the past year 2002. *NBSSI News* 1 (8).

NBSSI (2003), The Business Advisory Centres. *NBSSI News* 1(9): 8-9.

Nelson, R. (2001), On the shape of verbal networks in organizations. *Organization Studies* 22(5): 797-823.

Netswera, F. G. (2001), Perception of Johannesburg small business operators about their small business support systems. *South African Journal of Business Management* 32 (4): 31-37.

Nieman, G. (2001), Training entrepreneurs and small business enterprises in South Africa: a situational analysis. *Education and Training* 43 (8/9):445-450.

Ninsin, A.K. (1989) Planning for Growth of Small-Scale industries in the Informal Sector: The Realities and Challenges of the Ghanaian Economy. In: Aryeetey, E., (Ed.), *Proceedings of ISSER/UNDP International Conference on Planning for Growth and Development for Africa.* pp 260-279. Legon: University of Ghana.

Nittykangas, H., Storhammar, E., and Tervo, H. (1994), *Yrittäjyys ja yritysten synty paikallisissa toimintaympäristössä (the entrepreneurship and start-up of firms in the local environment).* University of Jyväskylä, Centre for Economic research, Publications 132.

Nohria, N. and Eccles, R.G. (1992), *Networks and Organizations: Structure, Form and Action.* Harvard Business School Press, Harvard.

North, J., Blackburn, R. and Curran, J. (1997), Reaching small businesses? Delivering advice and support to small business through trade bodies. In: Ram, M., Deakins, D. and Smallbone, D. *Small firms: Enterprising futures*, pp. 121-135. London: Institute of Small Business Affairs.

Nwoye, M. I. (1997), The role of the private sector in the promotion of young entrepreneurship in Nigeria. *Technovation* 17(9): 521-528.

O' Regan, N., Ghobadian, A., and Sims, M. (2006), Fast tracking innovation in manufacturing SMEs. *Technovation* 26: 251-261.

Oliver, A. and Ebers, M. (1998), Networking network studies: an analysis of conceptual configurations in the study of inter-organizational relationships. *Organization Studies* 19(4): 549-583.

Oliver, C. (1990), Determinants of interorganizational relationships: integration and future directions. *Academy of Management Review* 15: 241-265.

Olomi, D.R. (1999), Entrepreneurial Characteristics and Small Firm Performance. In: Rutashobya, L.K. and Olomi, D. R. (eds.), *African Entrepreneurship and Small Business Development.* DUP LTD: Dar Es Salaam, 161-180.

Orser, B.J., Hogarth-Scott, S., and Riding, A. L. (2000), Performance, Firm Size, and Management Problem Solving. *Journal of Small Business Management* 38 (4): 42-58.

Ostgaard, T.A. and Birley, S. (1994), Personal networks and firm competitive strategy: A strategic or coincidental match? *Journal of Business Venturing* 9:281-305.

Oyelaran-Oyeyinka, B., Laditan, G.O.A., Esubiyi, A.O. (1996), Industrial innovation in Sub-Saharan Africa: the manufacturing sector in Nigeria. *Research Policy* 25: 1081-1096.

Oyeleran-Oyeyinka, B. (2004), Learning, knowledge, and skills: implications for firm-level performance in African industry. *International Journal of Technology Management and Sustainable Development* 3 (2): 91-113.

Özcan, G.B. (1995), Small business networks and local ties in Turkey. *Entrepreneurship and Regional Development* 7: 265–282.

Pagano, R. R. (1998), Understanding Statistics in the Behaviour Sciences. Pacific Grove: Brooks /Cole Publishing Company.

Palmer, M. (1971), The application of psychological testing to entrepreneurial potential'. *California Management Review* 13: 32-39.

Panizzolo, R. (1997), Managing innovation in SMEs: a multiple case analysis of the adoption and implementation of product and process design technologies. *Small Business Economics* 11: 25-42.

Parker, J. and Torres, T. R. (1994), *Micro and small enterprises in Kenya: Results of the 1993 National Baseline Survey*. Nairobi: Growth and Equity through Microenterprise Investments and Institutions (Gemini Report).

Parker, R.L., Riopelle, R. and Steel, W. F. (1995). Small Enterprise Adjustment to Liberalisation in Five African Countries. *World Bank Discussion Paper No.271.*

Parker, S. C. (2004), *The Economics of Self-Employment and Entrepreneurship.* Cambridge: Cambridge University Press.

Patton, D. and Marlow, S. (2002), The determinants of management training within smaller firms in the UK. What role does strategy play? *Journal of Small Business and Enterprise Development* 9(3): 260-270.

Patton, D., Marlow, S. and Hannon, P. (2000) The Relationship between Training and Small Firm Performance; Research Frameworks and Lost Quests. *International Small Business Journal* 19 (1): 11-27.

Penrose, E. (1959), *The Theory of the Growth of the Firm.* Blackwell Scientific Publications. Oxford: Oxford University Press.

Penrose, E. (1995) *The Theory of the Growth of the Firm.* Oxford: Oxford University Press Inc.

Pentax Management Consultancy Services (2005), Markets in Ghana for micro and small enterprises: The usage, attitude image market study. Accra

Piore, M.J. and Sabel, C.F. (1984), The Second Industrial Divide. Basic Books, New York.

Pounds, W.F. (1969), The process of problem finding. *IMR* 1969.

Powell, W. (1990), Neither market nor hierarchy: network forms of organization. In: Staw, B. and L.L. Cummings, L. L. (Eds.), *Research in Organizational Behaviour).* JAI Press, Greenwich, CT.

Priem, R. and Butler, J. (2001b), Tautology in the Resource-Based View and the Implications of Externally Determined Resource Value: Further Comments. *The Academy of Management Review* 26(1): 57-66.

Priem, R. L. and Butler, J. E. (2001a), Is the Resource-Based "View" a Useful Perspective for Strategic Management Research. *The Academy of Management Review* 26(1): 22-40.

Ramsden, M. and Bennett, R.J. (2005), The benefit of external support to SMEs: "Hard" versus "soft" outcomes and satisfaction level. *Journal of Small Business and Enterprise Development* 12 (2):227-243.

Ramsden, M., Bennett, R. and Fuller, C. (2002), The end of TECs: A Challenge for Partners and Successor Bodies to Maintain Discretionary Activity. *Policy Studies* 23 (3-4): 231-246.

Rankin, N., Soderbom, M. and Teal, F. (2002), *The Ghanaian Manufacturing Enterprise Survey 2000.* Oxford: Centre for the Study of African Economies (CSAE), University of Oxford.

Rauch, A., Frese, M. and Utsch, A. (2005), Effects of Human Capital and Long-Term Human Resources Development and Utilization on Employment Growth of Small-Scale Businesses: A Causal Analysis. *Entrepreneurship Theory and Practice* 29(6): 681-698.

Reid, G. C. and Smith, J. A. (2000), What Makes a New Business Start-Up Successful? *Small Business Economics* 14(3): 165-182.

Reinikka, R. and Svensson, J. (1999), *Investment response and constraints in Uganda.* Washington DC: The World Bank, Development Research Group.

Rietz, A. D. and Henrekson, M. (2000), Testing the Female Underperformance Hypothesis. *Small Business Economics* 14(1): 1-10.

Ring, P., Van de Ven, A. 1(992), Structuring cooperative relationships between organizations. *Strategic Management Journal* 13: 483-498.

Robb, A. and Wolken, J. (2002), Firm, Owner, and Financing Characteristics: Differences between Female-and Male-owned Small Businesses, mimeo, Federal Reserve Board of Governors, USA.

Robertson, P.L. (2003), The role of training and skilled labour in the success of the SMEs in developing economies. *Education and Training* 45 (8/9): 461-473.

Robson, P. J. A. and Bennett, R. J. (2000), SME Growth: The Relationship with Business Advice and External Collaboration. *Small Business Economics,* 15(3): 193-208.

Robson, P. J. A., Haugh, H. M., and Obeng, B. A. (2006), The Adoption of Innovation in Ghana. In: Laveren, E. and Crijns, H. (Eds*), RENT XX Researching in Entrepreneurship and Small Business. Entrepreneurship: a driver for sustainable growth in a global and knowledge-based environment.* Antwerpen: Intersentia.

Robson, P.J.A. and Bennett, R.J. (2000b), The use and impact of business advice by SMEs in Britain: an empirical assessment using logit and ordered logit models. *Applied Economics* 32: 1675-1688.

Robson, P.J.A. and Obeng, B.A. (2007), Barriers to Growth in Ghana. *(Forthcoming) Small Business Economics.*

Rodriguez, A.C., Molina, M.A., Perez, A. C. and Hernandez, U.M. (2003), Size, Age, and Activity Sector on the Growth of the Small and the Medium Firm Size. *Small Business Economics* 21(3): 289-307.

Rogers, M. (2002), Networks, firm size and innovation. *Small Business Economics* 22: 141-153.

Rogerson, C.M. (2001), In search of the African Miracle: debates on successful small enterprise development in Africa. *Habitat International* 25 (1):112-142.

Roper, S. (1998), Entrepreneurial Characteristics, Strategic Choice and Small Business Performance. Small Business Economics 11: 11-24.

Roper, S. (1999), Modelling Small Businesses Growth and Profitability. *Small Business Economics,* 13(3): 235-252.

Rosa, P. J., Balunywa, W., and Kodithuwakku, S. (2006), *Entrepreneurial Motivation in Developing Countries: What Does 'Necessity' and 'Opportunity' Entrepreneurship Really Mean?* A presentation at 2006 Babson College Entrepreneurship Research Conference, Indiana University, Kelley Business School, Bloomington, Indiana, June 8-10.

Sackey, H.A. (2005), *Poverty in Ghana from an assets-based perspective.* Oxford: Blackwell Publishing Limited.

Sadler-Smith, E., Hampson, Y., Chaston, I. & Badger, B. (2003), Managerial Behaviour, Entrepreneurial Style, and Small Firm Performance. *Journal of Small Business Management* 41(1): 47-67.

Saffu, K. (2004), *An exploration of business ownership and family issues of Ghanaian female entrepreneurs'*, mimeo, Ontario, Canada: Brock University.

Saffu, K. and Manu, T (2004), *Strategic capabilities of Ghanaian female business owners and the performance of their ventures*, mimeo, Ontario, Canada: Brock University.

Samuels, J. M. (1965), Size and the Growth of Firms. *The Review of Economic Studies* 32(2): 105-112.

Sarder, J.H. (1995), Small Enterprise Development in Bangladesh. PhD dissertation, University of Stirling.

Satta, T.A. (2003), Enterprise characteristics and constraints in developing countries: Evidence from a sample of Tanzania micro and small-scale enterprises. *Entrepreneurship and Innovation* 4 (3): 175-184.

Schiffer, M. and Weder, B. (2001), Firm Size and the Business Environment: Worldwide Survey Results. *International Finance Corporation (Discussion Paper)* (43).

Schoombee, A. (2000), Getting South African banks to serve micro-entrepreneurs: an analysis of policy options. *Development Southern Africa* 17 (5):751-767.

Schwartz, D. and Bar-El, R. (2004), Targeted Consultancy Services as an Instrument for the Development of Remote SMEs: A Brazilian case. *International Small Business Journal* 22: 503-521.

Sexton, D. L., Upton, N. B., Wacholtz, L. E. and Mcdougal, P. A. (1997), Learning Needs of Growth-Oriented Entrepreneurs. *Journal of Business Venturing* 12: 1-8.

Shaffer, S. (2006), Establishment Size by Sector and County-Level Economic Growth. *Small Business Economics* 26 (2): 145-154.

Sharma, R. (2004), An Overview of the field of family business studies: Current Status and Direction for the Future. *Family Business Review* 17 (1): 1-36.

Shelton, L. M. (2006), Female Entrepreneurs, Work-Family Conflict, and Venture Performance: New Insights into the Work-Family Interface. *Journal of Small Business Management,* 44: 285-297.

Simon, H. A. and Bonini, C. P. (1958), The Size Distribution of Business Firms. *The American Economic Review* 48(4): 607-617.

Sims, R., Breen, J. and Ali, S. (2002), Small business support: Dealing with impediment to growth. *Journal of Enterprise Culture* 10 (4): 241-256.

Sirmon, D. S. and Hitt, M. A. (2003), Managing Resources: Linking Unique Resources, Management, and Wealth Creation in Family Firms. *Entrepreneurship Theory and Practice* 27(4): 339-358.

Sleuwaegen, L. and Goedhuys, M. (2002), Growth of firms in developing countries, evidence from Cote d'Ivoire. *Journal of Development Economics* 68: 117-135.

Smallbone, D. and Wyer, P. (2000), Growth and development in the small firm. In: S. Carter and D. Jones-Evans (eds.) *Enterprise and Small Business*, London: Financial Times, Prentice Hall.

Smallbone, D., and Welter, F. (2001), The Distinctiveness of Entrepreneurship in Transition Economies. *Small Business Economics* 16: 249-262.

Smallbone, D., Leigh, R. and North, D. (1995), The Characteristics and Strategies of High Growth SMEs. *International Journal of Entrepreneurial Behaviour & Research* 1 (3): 44-62.

Snow, C., Miles, R. and Coleman, H. (1992), Managing 21st century network organizations. *Organizational Dynamics* 20(3): 5-20.

Soderbom, M. and Teal, F. (2002), Size and efficiency in African manufacturing firms: Evidence from firm-level panel data. *Journal of Development Economics* 73: 369-394.

Sowa, N. K., Baah-Nuakoh, A., Tutu, K.A., and Osei, B. (1992), *Small enterprise and adjustment: The impact of Ghana Economic Recovery Programme on small-scale industries enterprises*. London: Overseas Development Institute.

Spring, A. and McDade, B.E. (eds) (1998), *African Entrepreneurship: Theory and Reality*. Gainesville, FL: University Press of Florida.

Stanger, A.M.J. (2004), Gender-comparative use of small business training and assistance: a literature review. *Journal: Education and Training* 42 (8/9): 464-473.

Starr, J. and MacMillan, I.C. (1990), Resource cooptation via social contracting: Resource acquisition strategies for new ventures. *Strategic Management Journal* 11: 79-92.

Steel F. W. and Webster, L.M. (1992), How Small Enterprises in Ghana Have Responded to Adjustments. *The World Bank Economic Review* 2 (3):423-438.

Steel, F. W. and Andah, A. O. (2003), Rural and micro finance regulation in Ghana: Implications for development and performance of the industry. *World Bank Africa Region Working Paper Series* (49).

Steel, W. F., Aryeetey, E., Hettige, H., Nissanke, M. (1997), Informal Financial Markets Under Liberalization in Four Africa Countries. *World Development* 25 (5): 817-830.

Steel, W.F. (1994), Changing the institutional and policy environment for small enterprise development in Africa. *Small Enterprise Development* 5 (2): 4-9.

Steinhoff, D. and Burgess, J.F. (1989), Small Business Management Fundamentals. 2nd ed. New York: McGraw-Hill Publishing Company.

Stel, A. V. and Carree, M. (2004), Business Ownership and Sectoral Growth: An Empirical Analysis of 21 OECD Countries. *International Small Business Journal* 22(4): 389-419.

Stinchcombe, A.L. (1965), Social structure and organizations. In March J. P. (Ed.) *Handbook of Organizations*, Chicago: Rand McNally, pp. 142-193.

Storey, D. (1994), *Understanding the Small Business Sector.* London: Routledge.

Storey, D. (2000), Six steps to heaven: Evaluating the impact of public policies to support small businesses in developed economies. In: Sexton, D. and Landstrom, H., (Eds.) The *Blackwell Handbook of Entrepreneurship*, pp. 176-193. Oxford: Blackwell Publishers Ltd.

Storey, D. J. (2004), Exploring the link, among small firms, between management training and firm performance: a comparison between the UK and other OECD countries. *International Journal of Human Resource Management* 15(1): 112-130.

Storey, D.J. and Westhead, P. (1997), Management training in small firms- a case of market failure. *Human Resource Management Journal* 7 (2): 61-71.

Sutton, J. (1997), Gibrat's Legacy. *Journal of Economic Literature, 35(1): 40-59.*

Sutton, J. (2002), The variance of firm growth rates: the 'scaling' puzzle. *Physica A: Statistical Mechanics and its Applications,* 312, 577-590.

Suzuki, A. (2002), Business Training Markets for Small Enterprises in Developing Countries: What do we know so far about the potential? *SEED Working Paper No. 32 ILO, Geneva.*

Sverrisson, A. (1997), Enterprise Networks and Technological Change: Aspects of light engineering and metal working in Accra. In: Dijk, M. P. van and Rabellotti, R., (Eds) *Enterprise Clusters and Networks in Developing Countries,* EADI Books Series 20. London: Frank Cass & Co. Ltd.

Swanson, A. R. and Sleezer, C.M. (1987), Training effectiveness evaluation. *Journal of European Industrial Training* 11 (4): 7-16.

Swierczek, F. W. and Ha, T. T. (2003), Motivation, Entrepreneurship and the Performance of SMEs in Vietnam. *Journal of Enterprising Culture,* 11 (1): 47-68.

Tagoe, N., Nyarko, E. and Anuwa-Amarh, E. (2005), Financial Challenges Facing Urban SMEs under Financial Sector Liberalization in Ghana. *Journal of Small Business Management* 43 (3): 331-343.

Takyi-Asiedu, S. (1993), Some Socio-Cultural Factors Retarding Entrepreneurial Activity in Sub-Saharan Africa. *Journal of Business Venturing* 8 (2):91-98.

Teal, F. (1998), The Ghanaian Manufacturing Sector 1991-1995: Firm Growth, Productivity and Convergence. *CSAE WPS/98-17.*

Terpstra, D.E. and Olson, P.D. (1993), Entrepreneurial start-up and growth: A classification of problems. *Entrepreneurship Theory and Practice* 17 (3):5-20.

The Commission of the European Communities (1996), Commission Recommendation (96/280/EC) of 3 April, 1996 concerning definition of small and medium sized enterprises. Official Journal L107 of 30.04.1996.

Theng, L.G. and Boon, J.L.W. (1996), An Exploratory Study of Factors Affecting the Failure of Local Small and Medium Enterprises. *Asia Pacific Journal of Management* 13 (2): 47-61.

Thurik, R. and Wennekers, S. (2004), Entrepreneurship, small business and economic growth. *Journal of Small Business and Enterprise Development* 11(1): 140-149.

Tomarken, A J and Waller, N G (2005) Structural Equation Modeling: Strengths, Limitations, and Misconceptions. *Annual Review of Clinical Psychology* 1: 31-65.

Trulsson, P. (1997), Strategies of Entrepreneurship: Understanding Industrial Entrepreneurship and Structural Change in Northwest Tanzania. Linköping: Linköping University, Studies in Arts and Science, N. 161.

Trulsson, P. (1999), Managing Growth: Perspective on achieving small enterprise growth in Tanzania, Uganda, and Zimbabwe. *(ILO Working Paper, PMD/4/E)* Geneva: ILO.

Trulsson, P. (2002), Constraints of Growth-Oriented Enterprises in the Southern and Eastern African Region. *Journal of Developmental Entrepreneurship* 7 (3): 331-339.

UNCTAD (1999), Providing Sustainable Financial and Non-Financial Services for SME Development. *UNCTAD.*

UNCTAD (2001), Improving The Competitiveness of SMEs in Developing Countries: The Role of Finance to Enhance Enterprise Development. *UNCTAD/ITE/TEB/Misc3.*

Uzzi, B. (1997), Social structure and competition: the paradox of embeddedness. *Administrative Science Quarterly* 42: 35-67.

Vaessen, P. and Keeble, D. (1995) Growth-Oriented SMEs in Unfavourable Regional Environments. *Regional Studies,* 29(6): 489-505.

Van Bussel, P., Competence Based Advisory Ltd. and Pentax Management Consultancy Services (2001), *Market study on MSEs and Business Development Service Providers*. Accra

Van Dijk, B., Den Hertog, R., Menkveld, B. and Thurik, R. (1997), Some New Evidence on the Determinants of Large- and Small-Firm Innovation. *Small Business Economics* 9: 335-343.

Van Dijk, M. P. (1997), Small Enterprise Associations and Networks: Evidence from Accra. In Van Dijk, M. P. and Rabellotti, R., (Eds) *Enterprise Clusters and Networks in Developing Countries.* London: Frank Cass, 131-154.

Van Gelderen, M., Frese, M. & Thurik, R. (2000), Strategies, Uncertainty and Performance of Small Business Start-ups. *Small Business Economics* 15: 165-181.

Velenchik, A. D. (1995), Apprenticeship Contracts, Small Enterprises, and Credit Markets in Ghana. *World Bank Economic Review* 9(3): 451-475.

Verspreet, D. and Berlage, L. (1998) *Small scale enterprise development in Tanzania: Driving forces.* Leuven: KUL, Centre for Economic Studies.

Verspreet, D. and Berlage, L. (1999), *Small Scale Manufacturing Sector in Tanzania: Business Support Services and The Regulatory Environment.* Leuvan: Catholic University of Leuvan.

Von Hippel, E. (1988), *The sources of innovation.* New York: Oxford University Press.

Wagner, J. (1995), Exports, firm size, and firm dynamics. *Small Business Economics* 7: 29-39.

Walsh, J.P. (1988), Selectivity and selective Perception: An investigation of managers' belief structures and information processing. *Academy of Management Journal* 31 (4):873-896.

Ward, A. and McKillop, D. G. (2005), The Law of Proportionate Effect: The Growth of the UK Credit Union Movement at National and Regional Level. *Journal of Business Finance & Accounting, 32(9) & (10): 1827-1859.*

Water, T., Rosa, P., Barabas, S., et al. (2004), *GEM 2004 Executive Report.* Kampala: Makerere University Business School.

Watkins-Mathys, L. and Lowe, S. (2005), Small Business and Entrepreneurship Research: The Way Through Paradigm Incommensurability. International Small Business Journal, 23 (6): 657-677.

Weinzimmer, L. G., Nystrom, P. C. & Freeman, S. J. (1998), Measuring Organizational Growth: Issues, Consequences and Guidelines. *Journal of Management,* 24(2) 235-262.

Welch, C.L. and Welch, L.S. (2004), Broadening the concept of international entrepreneurship: internationalisation, networks and politics. *Journal of International Entrepreneurship* 2: 217-237.

Wernerfelt, B. (1984) Resource-Based View of the Firm. *Strategic Management Journal* 5 (2): 171-180.

Westhead, P. and Birley, S. (1995), Employment growth in new independent owner managed firms in Great Britain. *International Small Business Journal* 13 (3): 11-19.

Westhead, P. and Storey, D. (1996), Management Training and Small Firm Performance: Why is the link so weak? *International Small Business Journal* 14 (4):13-24.

Westhead, P. and Storey, D.J. (1995), Links Between Higher Education Institutions and High Technology Firms. *Omega*, 23 (4): 345-360.

Whetten, D. A. (1987), Organisational Growth and Decline Processes. *Annual Review of Sociology* 13: 335-358.

White, M., Braczyk, H., Ghobadian, A. and Niebuhretj, J. (1988), *Small Firms' Innovation*. London: Pinter Publishers.

Wignaraja, G. (2002), Firm size, technological capabilities and market oriented-policies in Mauritius. *Oxford Development Studies* 30 (1): 87-105.

Wolf, S. (2004), Performance and Problems of Enterprises in Ghana. Department of Agricultural Economics and Agribusiness Working Paper, Ghana: University of Ghana.

Wong, P. K., Ho, Y. P. and Autio, E. (2005) Entrepreneurship, Innovation and Economic Growth: Evidence from GEM data. *Small Business Economics*, 24(3) 335-350.

Woodhall, M. (1995), Human Capital Concepts. In: Carnoy, M., (Ed.) International *Encyclopaedia of Economics of Education*, 2 ed. pp. 2

Wren, C. and Storey, D. J. (2002) Evaluating the effect of soft business support upon small firm performance. *Oxford Economics Papers* 2002 54: 334-365.

Yang, C.H. and Huang, C. H. (2005), R&D, Size and Firm Growth in Taiwan's Electronics Industry. *Small Business Economics* 25(5): 477-487.

Yasuda, T. (2005), Firm Growth, Size and Behaviour in Japanese Manufacturing. *Small Business Economics* 24(1): 1-15.

Yli-Renko, H. and Autio, E. (1997), The network embeddedness of new, technology-based firms: developing a systemic evolution model. *Small Business Economics*, 11: 253-267.

Young, N. (1998), The structure and substance of African American entrepreneurial networks: some preliminary findings. In: P.D. Reynolds, W.D. Bygrave, N.M. Carter, S. Manigart, C.M. Mason, G.D. Meyer and K.G. Shaver (Eds.), *Frontiers of Entrepreneurship Research*. Babson College, Wellesley, MA.

THE
ROBERT GORDON
UNIVERSITY
ABERDEEN

Robert Gordon University

Centre for Entrepreneurship

Survey of Small Business in Ghana

2005

This survey is prepared to gain a better understanding of the problems faced by small businesses in Ghana.

All the information which you provide will be kept confidential and anonymous, and will be used only for academic research.

SECTION A
INFORMATION ABOUT YOUR CHARACTER AND THE BUSINESS

A1. Please indicate whether you are: Male Female

A2. What is your age?

A3. Which of the following educational qualification do you have?
(*Please circle appropriate box/es*)

JSS / Middle	Yes	No
SSS / GCE O. Level	Yes	No
Technical / Vocational / Apprenticeship	Yes	No
GCE A. Level	Yes	No
Bachelors degree	Yes	No
Professional qualification (i.e. Accountancy/Law	Yes	No
Masters degree	Yes	No
Others (Please specify)	Yes	No

A4. What motivated you to start the business? (*Please circle appropriate box/es*)

Desire to work for oneself	Yes	No
Due to redundancy	Yes	No
Frustration in previous employment	Yes	No
Wish to accumulate wealth	Yes	No
An excellent opportunity presented itself	Yes	No
Relative in business	Yes	No
Previous experiences prepared me	Yes	No
Others (Please specify)	Yes	No
	Yes	No

A5. Have you had any previous experience in business? Yes No

A6a. Has any member of your family been involved in business in the past? Yes No

A6b. Is this business related to your current business activities? Yes No

A7. In which year did you establish your business?

A8. What is the type of legal organisation of your business?
(*Please circle appropriate box*)

Unregistered sole proprietorship	1
Registered sole proprietorship	2
Partnership	3
Private limited liability	4
Others (Please specify)	5

A9a. What percentage of the business is owned by you and your family?

A9b. What percentage of the business is owned by other people; and who are they?

A10. What does your business make / provide?

A11. Where do you sell your products? Please indicate the percentage of sales in each market. (*Please circle appropriate box/es*)

Type of Market	Do you sell in this type of market?		Percentage of Sales
Local market	Yes	No	
National market	Yes	No	
West African market	Yes	No	
International market- Europe	Yes	No	
International market- US	Yes	No	
Others (Please specify)	Yes	No	
	Yes	No	
Total			=100%

A12. Who are your main competitors? (*Please circle appropriate box(es)*)

No competitors	Yes	No
Firms in the local market	Yes	No
Firms in the national market	Yes	No
Firms in international markets	Yes	No
Others (Please specify)	Yes	No

A13a. Do you currently employ any member of your family in the business? | Yes | No |

A13b. If the answer to the above question is yes, please indicate the number and the role.

Number of family members	
Role	

A14. During the last three years, which of the following factors listed below, do you perceive as hindering or limiting your ability to meet your business objectives? (*Please circle the appropriate number in each row)*

Factor	Not Important Limitation	Moderately Important Limitation	Important Limitation	Crucial Limitation
Finance:				
Inadequate access to debt finance	1	2	3	4
Inadequate access to equity finance	1	2	3	4
Interest rates too high	1	2	3	4
Do not have collateral to secure bank loan	1	2	3	4
Difficult to meet loan criteria	1	2	3	4
Inadequate family finance	1	2	3	4
Market:				
Inadequate demand	1	2	3	4
Too many competing firms	1	2	3	4
Competition from imported goods	1	2	3	4
High advertising costs	1	2	3	4
Inadequate market research	1	2	3	4
Managerial/ Technical Know-how:				
Shortage of skilled labour	1	2	3	4
High wages for skilled labour	1	2	3	4
Access to new technology	1	2	3	4
Inadequate financial skills	1	2	3	4
Inadequate management skills	1	2	3	4
Inadequate marketing skills	1	2	3	4
Inadequate technical skills	1	2	3	4

Factor	Not Important Limitation	Moderately Important Limitation	Important Limitation	Crucial Limitation
Inputs				
High cost of local raw materials	1	2	3	4
High cost of imported raw materials	1	2	3	4
Inadequate supply of raw materials	1	2	3	4
Outmoded equipment	1	2	3	4
High cost of replacing old equipment	1	2	3	4
Difficulty in finding appropriate equipment	1	2	3	4
Poor quality of local raw materials	1	2	3	4
Poor quality of imported raw materials	1	2	3	4
Economic/Regulatory				
High rate of inflation	1	2	3	4
High depreciation of the cedi	1	2	3	4
High tax and import duties	1	2	3	4
Registration / Licensing / Red tape	1	2	3	4
Corruption	1	2	3	4
Infrastructure				
High cost of utility charges	1	2	3	4
Lack of industrial sites	1	2	3	4
High transport costs	1	2	3	4
Low quality of electricity / water supply	1	2	3	4
Poor telecommunication networks	1	2	3	4
Socio-cultural				
Use of business resources to support family	1	2	3	4
Others (Please specify)	1	2	3	4

SECTION B

This section seeks to establish your use of external business advice.

B1. Which of the following sources of advice have you used in the last three years? Please also assess the impact of the advice you received on meeting your business objectives.

	Used at least once in last 3 years		No positive impact	Moderate Impact	Important Impact	Crucial Impact
Accountant	Yes	No	1	2	3	4
Solicitor	Yes	No	1	2	3	4
Bank	Yes	No	1	2	3	4
Customer	Yes	No	1	2	3	4
Business Associates	Yes	No	1	2	3	4
Friends /relatives	Yes	No	1	2	3	4
Suppliers	Yes	No	1	2	3	4
Consultants	Yes	No	1	2	3	4
Chamber of Commerce	Yes	No	1	2	3	4
Trade/Professional Association	Yes	No	1	2	3	4
NBSSI (BAC)	Yes	No	1	2	3	4
EMPRETEC	Yes	No	1	2	3	4
TECHNOSERVE	Yes	No	1	2	3	4
APDF	Yes	No	1	2	3	4
GRATIS/ITTU	Yes	No	1	2	3	4
University/Polytechnic	Yes	No	1	2	3	4
Other Please Specify.....	Yes	No	1	2	3	4

B2. If you did use NBSSI in the last three years, which of its services have you used? For those services used, please indicate your level of satisfaction. *Please circle the appropriate answer in each row.*

Name of Institution: **NBSSI**	Used service		Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
Entrepreneurship awareness	Yes	No	1	2	3	4
General management	Yes	No	1	2	3	4
Sales and marketing	Yes	No	1	2	3	4
Business plan preparation	Yes	No	1	2	3	4
Book-keeping/costing	Yes	No	1	2	3	4
Workshop/seminar	Yes	No	1	2	3	4
Innovation and technology	Yes	No	1	2	3	4
Production/Operations	Yes	No	1	2	3	4
General business information	Yes	No	1	2	3	4
Loans	Yes	No	1	2	3	4
Credit facilitation	Yes	No	1	2	3	4
Other (Please specify).	Yes	No	1	2	3	4
	Yes	No	1	2	3	4

B3. If you did use Empretec in the last three years, which of its services have you used? For those services used, please indicate your level of satisfaction. *Please circle the appropriate answer in each row.*

Name of Institution: **Empretec**	Used service		Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
Business health checks	Yes	No	1	2	3	4
General management	Yes	No	1	2	3	4
Sales and marketing	Yes	No	1	2	3	4
Business plan preparation	Yes	No	1	2	3	4
Client accounting/book-keeping	Yes	No	1	2	3	4
Business counselling	Yes	No	1	2	3	4
Innovation and technology	Yes	No	1	2	3	4
Productivity improvement	Yes	No	1	2	3	4
General business information	Yes	No	1	2	3	4
Foreign linkages/export dev.	Yes	No	1	2	3	4
Credit facilitation/Loan	Yes	No	1	2	3	4
Other (Please specify).	Yes	No	1	2	3	4
	Yes	No	1	2	3	4

B4a. Are there any additional service(s) that you want NBSSI to provide? | Yes | No |

B4b. Are there any additional service(s) that you want Empretec to provide? | Yes | No |

B5. If the above answer is 'yes', please provide the list of services that you want and which institution/s you would like to provide the services. Also indicate the maximum fee which you are prepared to pay for each service. *(Please specify if zero fee)*

Service	Provider	Maximum fee prepared to pay
1.		¢
2.		¢
3.		¢

B6. If you did not use either NBSSI or Empretec support, what are the reasons for not using any of the formal external support services? *Please circle the appropriate answer in each row.*

External advice not needed	Yes	No
High cost of service fee	Yes	No
Support not relevant to our needs	Yes	No
Unaware about the existence external support services	Yes	No
Support services not located in our area of operation	Yes	No
Time constraint – too busy to seek external support	Yes	No
Others (Please specify)	Yes	No

SECTION C TRAINING

C1a. Do you provide formal training to your workforce?

Yes	No

C1b. If 'Yes', please move to question 'C3'.

C2. Please kindly give reasons why you do not provide training to your workforce.

Training not needed	Yes	No
High training fee	Yes	No
Training not relevant to the business needs	Yes	No
Lack of information about training programmes	Yes	No
Time constraint	Yes	No
Others (please specify)	Yes	No
	Yes	No

C3. Please can you indicate the number of employees in each occupation group in your business? Please indicate the number of employees in each occupation group who currently receive formal training?

	Number of Employees		Training Provided		Number receiving training	
Types of Skill	Full-Time	Part-Time			Full-Time	Part-Time
Semi-skilled & unskilled manual			Yes	No		
Skilled manual			Yes	No		
Clerical administrative			Yes	No		
Technicians			Yes	No		
Technologists and scientist			Yes	No		
Managerial and Profession			Yes	No		
Total						

C4a. If you provide formal training, please can you indicate who provided the formal training? *Please circle the appropriate answer.*

Who provided the training?	Internal	Mixture	External

SECTION D INNOVATION AND PERFORMANCE

Innovation is concerned with the application of new ideas. Often these ideas take the form of new products and services or new production processes. However, innovation may also refer to new work practices and workforce organisation, to new sources of supply or materials (or new ways of working with key suppliers), to the exploitation of new markets or means of reaching those markets (including innovations in marketing, selling and distribution) and to new administration and office systems. In the following section we would like you to tell us about innovation introduced into your business. Unless otherwise specified, the term innovation should be taken to encompass any of the categories described above. However, innovations should involve substantive changes.

D1. Please provide answers to the following questions on innovation activity.

Please circle the appropriate response on each line	No Innovation	Innovation new to firm	Innovation new to industry
In products or services	1	2	3
In production processes (including storage)	1	2	3
In work practices, or workforce organisation	1	2	3
In supply and supplier relations	1	2	3
In markets and marketing	1	2	3
In administration and office systems	1	2	3
In products or services distribution	1	2	3

D2. Approximately what percentage of your firm's annual turnover was spent on research and development (R&D) and innovation related activities (e.g. marketing, design, better production capabilities) during the last 3 years? If zero, please indicate nil.

D3. Please kindly provide information on the following measures of output.

	2001	2004
How many people were employed in your business?		
Production (Units/Tonnes and Others)		
Sales (¢)		

D4. What are the main sources of funding for your business? Please specify the percentage of funds in your business which comes from each of the sources listed below.

Sources of funds	Present (%)	Start-Up (%)
Own funds		
Partner(s) contribution		
Ordinary shares		
Bank loan / overdraft		
Trade credit		
Family contribution		
Others (Please specify)		
Total	100%	100%

THANK YOU FOR YOUR COOPERATION

Appendix 2: Estimates of OLS Models of the Association between Owner-managers' and businesses' Characteristics and the Use of Business Advice with Growth in Employment.

Variables	Growth in Employment
Gender	**-7.045 (3.118)[b]**
Postgrad/ Prof/ Degree/ 'A'Lvl	-1.779 (2.868)
Technical/ Voc./ Appr.	-2.298 (2.850)
'O' Levels	**6.881 (3.055)[b]**
Age Entrepreneur	**-0.225 (0.095)[b]**
Previous Experience	-2.667 (2.156)
Size (Log)	**25.745 (2.602)[a]**
R&D	0.027 (0.093)
Agriculture	-4.106 (2.967)
Manufacturing	**-4.238 (2.253)[c]**
Family Business	3.688 (2.339)
Exporter	-0.140 (2.576)
Innovation	-1.579 (2.304)
Large town	-0.585 (2.810)
Small Town	1.353 (2.705)
Accountant	-2.403 (2.587)
Solicitor	-0.698 (2.832)
Bank	-0.293 (2.487)
Customer	**10.488 (2.882)[a]**
Business Associates	-1.013 (2.286)
Friends and relatives	0.490 (2.278)
Suppliers	-0.738 (2.353)
Consultants	-2.222 (3.154)
Chambers of Commerce	1.860 (4.085)
Trade/ Prof. Associations	**-8.551 (2.510)[b]**
NBSSI	5.296 (3.535)
Empretec	-3.261 (5.460)
TechnoServe	-0.572 (5.251)
APDF	4.509 (6.873)
GRATIS/ITTU	-5.140 (4.871)
Universities Polytechnics	-1.416 (4.099)
Constant	-2.242 (6.839)
R^2	0.296
F	**5.555[a]**
N	440

The excluded comparison variables are services sector, Junior secondary school certificate or lower and conurbation.
[a] Significant at 1% level, [b] Significant at 5%, and [c] Significant at 10%.